

## NEW MEDIA CULTURES

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# EXPLORING TECHNOLOGY AND SOCIAL SPACE

J. Macgregor Wise

**NMC**  
NEW MEDIA  
CULTURES



**SAGE Publications**  
*International Educational and Professional Publisher*  
Thousand Oaks London New Delhi

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*For information:*



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6 Bonhill Street  
London EC2A 4PU  
United Kingdom

SAGE Publications India Pvt. Ltd.  
M-32 Market  
Greater Kailash I  
New Delhi 110 048 India

Printed in the United States of America

*Library of Congress Cataloging-in-Publication Data*

Main entry under title:

Wise, John Macgregor.

Exploring technology and social space / by John MacGregor Wise

p. cm. — (New media cultures)

Includes bibliographical references (p. ) and index.

ISBN 0-7619-0421-2 (cloth: acid-free paper). — ISBN

0-7619-0422-0 (pbk.: acid-free paper)

1. Technology—Social aspects. 2. Information technology—Social aspects. I. Title. II. Series.

T14.5.W566 1997

303.48'33—dc21

97-21185

This book is printed on acid-free paper.

97 98 99 00 01 02 03 10 9 8 7 6 5 4 3 2 1

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*To my parents for a unique life*

16. This opening parallels the opening of *Terminator* in which human skulls are crushed by tank treads. Also in the *Terminator*, Schwarzenegger's character drives over and crushes a toy truck on his way to Sarah Connor's house.
17. James Cameron, writer and director of *The Terminator*, faced litigation because of a statement he made claiming that in writing the film he ripped off two *Outer Limits* TV episodes of the 1960s, "Soldier" and "Demon With a Glass Hand," both written by Harlan Ellison (Richardson, 1994, p. 49). Another Ellison short story, "I Have No Mouth, and I Must Scream," presents a global computer similar to both Skynet and Colossus. *Colossus: The Forbin Project* is based on a trilogy of novels by D. F. Jones. Global computers turning on humankind seems to be a consistent theme throughout the 1960s and early 1970s, though this trend cannot be traced to any germinal text. For example, Philip K. Dick, author of *Do Androids Dream of Electric Sheep?*, on which *Blade Runner* is based, has a story that is very similar to the Terminator's future scenario as well. Both "Soldier," in short story form, and "I Have No Mouth, and I Must Scream," can be found in *The Essential Ellison*, Terry Dowling, editor (Kansas City: The Nemo Press, 1987). I am indebted to participants in and the Frequently Asked Questions (FAQ) list for the Usenet newsgroup rec.arts.sf.movies for this information.
18. Claudia Springer (1991) points out that terminators "can be recognized as non-human only by dogs, not by humans" (p. 315).
19. See Constance Penley's psychoanalytic reading of time travel and *Terminator* (1990).
20. For example, there is little or no difference between the surgeon droid on the rebel medical frigate that tends to Luke in *The Empire Strikes Back* (1980), and the device used to torture Princess Leia in *Star Wars* (1977) (except that the latter is painted a menacing black).
21. The unmasking scene, plus the look of Darth as cyborg (a head that is mostly machine fronted by a human face), has parallels with *Robocop*.
22. For more on "appropriate" technology, see Ivan Illich (1973) and E. F. Schumacher (1973, 1977).
23. Luke uses his father's light saber when he begins his journey and training, but loses it (with his hand) once his father's identity is revealed. The entire scenario is very Oedipal: Luke possesses his father's phallus (and power) and lusts after his mother/sister (Leia); the father returns and reclaims the phallus (castrating Luke) and Luke is forced to build his own with which to fight and kill the father.
24. Compare these examples with Princess Leia's struggles with the technology of the Millennium Falcon in *The Empire Strikes Back* to see how gender biased these films are concerning technology.

## 2

### Beyond the Modern Episteme: Space and Agency in the Land of the Cyborgs

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Unfortunately, much of the discussion at the end of the last chapter begs the question that the cyborg itself brings up: the question of the border between human and other. The border in *Star Wars* is at once problematized (technology is bad) and not problematized (technology is neutral and can be appropriate). But in either case, the border still exists. The border space in *Robocop* is most definitely a battleground. These films draw the technology/human border *within* the cyborg, and thus the cyborg becomes the site of struggle. In Donna Haraway's (1991a) ironic myth of the cyborg, the cyborg *becomes* the border (as opposed to merely inhabiting the border as Terminators do), and by becoming the border, problematizes the distinction itself:

In the traditions of Western science and politics—the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as a resource for the productions of culture; the

tradition of reproduction of the self from the reflections of the other—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. (p. 150)

Her “Manifesto for Cyborgs” (1991a) is meant to be “an argument for pleasure in the confusion of boundaries and for responsibility in their construction” (p. 150). Neither this pleasure nor responsibility seem to be present in these recent science fiction films. Indeed, these filmic cyborgs appear to embody their military and patriarchal origins (p. 151) only too well. Rejecting the tendency toward technological determinism that has characterized progressive analyses since Marcuse, if not earlier (p. 154), Haraway argues that the cyborg figure also presents great possibilities for liberation and resistance. The cyborg, then, may be our ticket out of the modern episteme.

Cyborgs represent, for Haraway, the breakdown of four distinctions: animal and human, organism (animal/human) and machine, physical and nonphysical, and male and female. The purpose of cyborg politics is to deconstruct the power of the origin. This power ultimately decides which side “wins” and claims the cyborg (i.e., Robocop is human after all). The cyborg does not think in terms of the four distinctions listed above (which would always pose a struggle and maintain borders) but, rather, in terms of alliances, articulations, and spatial positionality. This does not posit the cyborg as a new whole (or synthesis): Cyborgs are partial, fragmentary, and ironic (p. 180). Cyborgs involve alliance and positionality over identity. Following Haraway, then, the figure of the cyborg ushers us into the amodern episteme.

The amodern episteme, arising in response to limitations of the modern, can be derived from the work of Bruno Latour and others in the sociology of science. Latour’s response to the modern is an epistemological flattening that considers social space in terms of agency, the movement and influence of actors. Gone are the divisions between the human and the technological because both humans and nonhumans can exert a social influence. In addition to this, there is no prioritizing of time over space (indeed, Latour argues that time is the *result* of the interactions of social actors, a move that I will explain below).

This chapter first sketches out the general actor-network theory and some of its problems. Second, it reviews Latour’s (1993) recent theory of an amodern social formation set out in his book, *We Have Never Been*

*Modern*. Finally, the chapter returns to the figure of the cyborg with fresh questions.

### Actor-Network

In reaction, partly, to the social constructivist view of technology that places social interests and interpretive frameworks completely prior to technology, Bruno Latour and Michel Callon describe what they refer to as an “actor-network” perspective of technology in which society and technology are mutually determining. John Law (1987) explains how the actor-network perspective on technology and society differs from alternative—modern—views of the social study of technology. As we’ve seen in the last chapter, social constructivists argue that artifacts and practices

are best seen as the *constructions* of individuals or collectives that belong to social groups. . . . Accordingly, the stabilization of artifacts is explained by referring to social interests that are imputed to the groups concerned and their differential capacity to mobilize resources in the course of debate and controversy. (p. 111)

Though not without its merits, the problem in such a view is that it sees the social as determining in all instances the outcome of the development of social and technological systems and artifacts.

One response to this modern view is exemplified in the work of T. P. Hughes, who argues for a systems perspective in which “innovators are best seen as systems builders” (Law, 1987, p. 112) who bring a variety of variables (social, technological, and economic) into play to solve the problems. The social, in this view, is not necessarily privileged.

The actor-network perspective borrows from the systems view but sees the construction of a network as much more difficult than Hughes makes it out to be. It steers between the Scylla and Charybdis of both technological and social determinism, arguing that “the stability and form of artifacts should be seen as a function of the interaction of heterogeneous elements as these are shaped and assimilated into a network” (Law, 1987, p. 113).

Michel Callon (1987) argues further:

The actor-network is reducible neither to an actor nor a network. Like networks it is composed of a series of heterogeneous elements, animate

and inanimate, that have been linked to one another for a certain period of time. . . . The entities it is composed of, whether natural or social, could at any moment redefine their identity and mutual relationships in some new way and bring new elements into the network. (p. 93)

The actor-network perspective stresses both the *contingency* of networks (i.e., they are not determined, permanent, or universal) and their *emergent* qualities. These networks are rarely stable for long and are continually bringing in new elements and changing the relationships between actors. They have "variable geometries" (Callon, 1993). By focusing on these emergent qualities, this approach likewise avoids the determination (or seeming determination) of retrospective sociological analyses that approach the subject with a certain theoretical framework (or metadiscourse) or historical outcome (or telos) in mind. Emergence also avoids a view of the system as closed. The actor-network approach focuses on real-time analyses, seeing how the network unfolds and transforms from the perspective of one of its actors.

It is through their conceptualizations of the actors within such networks that the actor-network perspective truly moves beyond modern perspectives on the social study of technology. Sociologists in general, Bruno Latour argues, are uncomfortable with technology and tend to place it in black boxes, relegating it to other disciplines (Latour, 1988, p. 298). Latour, and others, present a perspective in which technology (or other inanimate objects) is as much an actor as a human is. Callon and Latour (1981) define an actor as "any element which bends space around itself, makes other elements dependent upon itself and translates their will into a language of its own" (p. 286). Latour's example is that of an automatic door-closer that regulates *which* humans can enter a room (making it difficult for small children, the weak, the elderly, or the physically challenged) and *how* they enter a room. In this way, the door-closer manages space, movement through that space, and human behavior in that space (Latour, 1988).

Actors are not passive, but they vary in the extent to which they influence or resist the influence of other entities (Callon, 1993). Such a view of actors is necessary if one is to follow the *mutual* determination of both technology and society. Technology (artifacts and practices) needs to be seen as impinging on human behavior (what Latour [1988, p. 301] calls "prescription") as humans, in turn, shape technology.

Likewise, not only are humans and nonhumans to be seen within the same (conceptual and terminological) framework, but micro-actors

(individuals, door-closers, etc.) and macro-actors (institutions, corporations, etc.) are to be seen this way as well.

The difference between [micro- and macro-actors] is brought about by power relations and the constructions of networks that will *elude analysis* if we assume *a priori* that macro-actors are bigger than micro-actors . . . [A]ll actors are isomorphic . . . [which] does not mean that all actors have the *same* size but that *a priori* there is not way to decide the size since it is the consequence of a long struggle. (Latour & Callon, 1981, p. 280)

This episteme's focus on social actors is not based on notions of identity but of agency. What matters to the analysis is not the self-consciousness or "natural state" of the actor but, rather, its relations with other actors through what Latour (1993) calls alternatively the process of delegation or "the pass" (as in passing a football, or handing something off to someone). In this way, the closing of a door is delegated to an automatic groom (Latour, 1988) or the actions of yeast are passed to scientists studying them, who then speak for the yeast as its delegates (Latour, 1994). This notion of agency allows us to further understand how macro-actors cannot be known to be more powerful than micro-actors *a priori*, since IBM (as a macro-actor) cannot act on its own but only through its delegates (be they human representatives or its computers, etc.).

The advantages of such a view over previous perspectives on the social study of technology are numerous. As Susan Leigh Star (1991) writes, "the analytic freedom accorded by this heuristic is considerable; in fact Latour and Callon's work has opened up a whole new way of analyzing technology" (p. 43).

However, there are some problems with the actor-network perspective. One such problem is evidenced in a comment, almost a throwaway, by Latour (1988) in his piece on the door closer: "As a technologist, I could claim that, provided you put aside maintenance and a few sectors of the population that are discriminated against, the groom does its job well, closing the door behind you constantly, firmly and slowly" (p. 302).

Susan Leigh Star (1991), in her critique of this position, argues that "there is no analytic reason to put aside maintenance and the few sectors of the population that are discriminated against, in fact, every reason not to" (p. 43). The examination of such marginalized people is, in fact, to some feminist and Marxist perspectives, the *point* of the analysis. The

argument here is not intended to dictate what research objects Latour and others should take under consideration but, rather, to point out ways in which actor-network analyses, though a powerful research perspective, tend to fall back into dominant (some would say oppressive) structures of power. The space that is described by that analysis is only that of established power, rather than the forms of resistance within that space. Langdon Winner (1993), who groups the actor-network paradigm in with his critique of the social constructivists, writes:

By noticing which issues are never (or seldom) articulated or legitimized, by observing which groups are consistently excluded from power, one begins to understand the enduring social structures upon which more obvious kinds of political behavior rest. Failing to do this, social scientists offer an account of politics and society that is implicitly conservative, an account that attends to the needs and machinations of the powerful as if they were all that mattered. . . . Can research in the social construction of technology succeed if its map of the relevant social groups does not indicate which social groups have finally been sandbagged out of the laboratories and which social voices effectively silenced? (p. 441)

For example, John Law (1987), when explaining the combination of human and nonhuman actors that make up a network, states that "neither nature nor society has any role to play unless they impinge on the system builder" (p. 131). What is unclear is what exactly is meant by "impinging" in this case. Both Star and Donna Haraway would argue, I believe, that there are actors that "impinge" on the system builder that he or she does not notice, or (more important in this case) actors who are likewise missed by the analyst, such as secretaries, workers (primarily female) in Third World sweatshops, and the like. These workers, like the maintenance crew or the physically challenged in the case of Latour's door-closer, are often dismissed from the analysis, further compounding their marginal status. One reason for this might be the tendency in actor-network analyses to focus on the system builder, that is, a person in power, rather than an actor in a more subordinate or marginal position.

Sometimes persons are marginalized in relation to the dominant network(s) because they have resisted "translation" into the network. The term *translation*, like many of the terms used in actor-network analyses (such a *prescription*, etc.) is far too passive and (shall we say) disinterested to adequately describe the actual process. Star (1991) likens

the process to torture, preferring such terms as *discipline* to *prescription*. She writes that "discipline means forcing those delegated to conform to patterns of action and representation" (p. 29). The struggle is between networks that seek to stabilize and standardize, and those who wish to resist, who are not or do not want to be included in the network.

Donna Haraway (1991a) argues, "Technologies and scientific discourses can be partially understood as formalizations, i.e., as frozen moments, of the fluid social interactions constituting them, but they should be viewed as instruments for enforcing meanings" (p. 164).

Actor-network analyses look at the freezing of those moments, the enforcement of those meanings. They examine what happened (and what was supposed to happen, according to the actors' intentions). But they then avoid further questions concerning consequences or questions of value. By taking a stand of neutrality with regard to the playing out of a network, though this is theoretically useful at times, the actor-network view tends to perpetuate structures of inequality and domination.<sup>1</sup>

Also, by looking only at the *a priori* case, though analytically fruitful in many instances, the actor-network view seems to ignore the results of real differences in power (though perhaps not in *nature per se*) between micro- and macro-actors (cf. Callon & Latour, 1981, p. 284). Now, while it is true that, according to actor-network theory, we cannot know *a priori* which is more influential on the outcome of a *particular* situation (i.e., whether multinational capital, Intel, or individual technicians have greater influence in the construction of a new computer chip or office space), we lose too much if we remain just there and ignore the more general implications of the situation. In Latour's defense, Star (1991) writes that "heuristic flattening does not mean the same thing as empirical ignoring of differences. Rather, it is a way of breaking down reified boundaries that prevent us from seeing the ways in which humans and machines are intermingled" (p. 44).

Yes, but the questions we are guided to by this heuristic device still tend to ignore the violence of exclusion and those silenced by the network. Haraway (1991b) writes that Latour evinces

the abject failure of the social studies of science as an organized discourse to take account of the last twenty years of feminist inquiry. . . . For all of their extraordinary creativity, so far the mappings from most SSS scholars have stopped dead at the fearful seas where the worldly practices of inequality lap at the shores, infiltrate the estuaries, and set

the parameters of reproduction of scientific practices, artifacts, and knowledge. (p. 332n)

The consideration of such work may lead the actor-network perspective to question the notion of delegation—*who* is it who finally gets to speak?<sup>2</sup> why this actor and not another? and so on.

Despite its many shortcomings, the actor-network perspective, especially Bruno Latour's work, is important and productive. Langdon Winner (1993) lists what he finds valuable from this approach: "its conceptual rigor, its concern for specifics, its attempt to provide empirical models of technological change that better reveal the actual course of events" (p. 438).

In *We Have Never Been Modern* (1993), Latour attempts to set out the philosophical basis for actor-network theory.<sup>3</sup> In this book, Latour directly confronts the modern episteme by both denying the primacy of time over space and by bridging the dichotomy between Nature and Society (and therefore technological essentialism—its autonomy and determinism—and social determinism), filling in the ground between with what he terms "quasi-objects."

Latour's work presents a spatial view of technology—artifacts exist in space, manipulate and manage space, and, through networks constructed by the enlisting of multiple actors, establish lines of power and domination that crisscross space. "Technological networks . . . are connected lines, not surfaces" (Latour, 1993, p. 118). I say that this is a spatial view because it places space prior to time. Technological networks do not exist within an eternally unfolding time; that is the view of the moderns. Rather, "the proliferation of quasi-objects has exploded modern temporality" (p. 73). As the postmoderns have theorized, "every contemporary assembly is polytemporal . . . [they mix] elements of the past together in the form of collages and citations" (p. 74). But the postmodern's use of the past is to further the modern's need for continual revolution. The past is not something to be dug up—it has never disappeared. As Latour (1993) writes, "time is not a general framework but a provisional result of the connection among entities" (p. 74). Time "is a means of connecting entities and filing them away" (p. 75).<sup>4</sup> However, his view still holds to the (Kantian) distinction between time and space, though space is now placed prior to time.

According to Latour, the modern posits an ontological split between Nature and Society that is maintained by processes of *purification*. Objects are considered by the moderns to be either social or natural (human or

nonhuman), never both (we saw this in the last chapter). But this process is paralleled by a concurrent process of *translation* that "creates mixtures between entirely new types of beings, hybrids of nature and culture" (Latour, 1993, p. 10). What characterizes the modern for Latour is the consideration of these two processes separately (p. 11). Indeed, the moderns refuse to consider the hybridization at all, and see only processes of purification (or, in the terms of the last chapter, disenchantment). But "the more we forbid ourselves to conceive of hybrids, the more possible their interbreeding becomes" (p. 12).

Latour's project is to bring the process of translation fully back into the picture. By acknowledging hybrids, Latour problematizes the social/technological split that we have been discussing so far. In this way, he seeks to get out of the Master/Slave dialectic by recognizing the activity of the ground between them. In light of quasi-objects, "dialectics literally beats around the bush" (p. 55) because it ignores mediations.

Quasi-objects are much more social, much more fabricated, much more collective than the "hard" parts of nature, but they are in no way the arbitrary receptacles of a full-fledged society. On the other hand they are much more real, nonhuman and objective than those shapeless screens on which society—for unknown reasons—needed to be "projected." (p. 55)

"The moderns' greatness stems from their proliferation of hybrids, their lengthening of a certain type of network, their acceleration of the production of traces, their multiplication of delegates, their groping production of relative universals" (p. 133). Therefore, one of the aspects of the modern that Latour wishes to retain is the construction of long networks (p. 135). He writes, "the moderns have simply invented longer networks by enlisting a certain type of nonhumans" (p. 117). The global reach of the modern is made possible "by multiplying the hybrids, half object and half subject, that we call machines and facts" (p. 117). But what the moderns do with these long networks is universalize them while subsequently ignoring the networks of hybrids that make them possible. Latour wishes to retain these long networks, recognizing the hybrids and denying both the push to universality and absolute relativism. It is not a question of local or global, rather a network is "local at all points" (p. 117). For example, "electromagnetic waves may be everywhere, but I still need to have an antenna, a subscription and a decoder if I am to get CNN" (p. 117). When dealing with organizations and institutions, modern ones tend to be larger not because they embody or exhibit some

universal abstraction such as bureaucratic rationality or postindustrial capital, but because they have been able to enlist, through the aid of new hybrids, larger numbers of artifacts and actors. What Latour wishes to retain, then, are the ways that the modern has multiplied the production of quasi-objects (hybrids) and subsequently enlisted them to form longer and longer networks that can span the globe. He wishes to retain what has been the fundamental underpinning of the modern, the existence of which the moderns have always adamantly refused to recognize, and throw out their sense of universality and rationality (pp. 120, 135).

But finally what Latour retains are the poles of social subjectivity and objective nature (p. 135), despite all of his work of filling in the spaces in between with quasi-objects. Nature and Society are inseparable and both of them are produced by the processes of mediation, delegation, and translation, but Latour argues that "at the end of the process, there is indeed a nature we have not made, and a society that we are free to change; there are indeed indisputable scientific facts, and free citizens" (p. 140). He retains the transcendence of Nature and the immanence of Society, though he reveals the singular process through which both are created. It is not that there *is not* a nature that we have not made, rather my objection here is that this does not matter in terms of this episteme. Latour makes this assertion to distance himself from absolute relativism and social constructivism, but in doing so reintroduces the modern episteme (unnecessarily, it seems to me). The human being is removed from the subject pole and placed in the realm of mediation; it is no longer merely on a continuum between Subject and Object (a latitudinal line of essence) but is placed longitudinally as well between essence and existence (pp. 86, 137). The moderns reduce all to the line of essence; non-moderns consider a further dimension.

But we are still left within the Cartesian (and, of course, Kantian) problematic of Subject/Object even though we, as humans, now seem to move quite freely within and around that Cartesian (modern) space.<sup>5</sup> However, we do step out of the Master/Slave dialectic. Latour escapes this problematic of identity not by describing the human *and* its retinue of delegates, but by describing the human *as* "the set of its delegates and its representatives, its figures and its messengers" (p. 138).

From this position, Latour (1993) argues against the technological determinists, especially Ellul: "Protecting human beings from the domination of machines and technocrats is a laudable enterprise, but if the machines are full of human beings who find their salvation there, such

a protection is merely absurd" (p. 124). On the one hand, Latour has a point here, but far more significantly, we are brought back to Winner's critique of the social constructivists: Where is the politics here? What are we to make of this particular distribution of quasi-objects?

It is Latour who wrote once that science is politics by other means (repeated in 1993, p. 111), and it is in this direction that his significance for political work lies. Latour's work greatly broadens the scope of the political to include nonhuman actors in ways that they had not been considered before. But at the same time, his descriptions of the modern situation (and the nonmodern situation), the establishment of long networks, the testimony of nonhumans, and so forth, leave little room for an evaluative stance. It is not that his theory, like the relativists and postmodernists against whom he argues, denies any critical position (critical distance, in Fredric Jameson's [1984] phrase), rather it is just not a stance that he takes, to the detriment of his work.

Latour (1993) asks, for example, "how could we be victims of a total technological system, when machines are made of subjects and never succeed in settling into more or less stable systems?" (p. 115). This is more or less correct. But as we can see here, and in Haraway's and Star's earlier critiques, Latour's focus is on the impossibility of total, nonhuman systems rather than the quite real effectivity of victimization. As he writes later on, in part arguing against Deleuze and Guattari,

we need not add total domination to real domination. Let us not add power to force. We need not grant total imperialism to real imperialism. We need not add absolute deterritorialization to capitalism, which is also quite real enough. (p. 125)

But the "real" ways in which capitalism and imperialism dominate are left intact; we are given a methodology for tracing the multiplicity of actors that constitute Latour's networks, but no sense of what to do with them.

### Cyborg Redux

We return to the case of the cyborg, part human and part machine, that ironic political myth of a border case, to find a way out of this. But we must first differentiate between Haraway's theoretical cyborgs and the cyborgs committing mayhem on our theater screens.



Haraway's hopes for the cyborg as an escape from gender are not realized in the recent science fiction films that we have been discussing. Claudia Springer points out in her article, "The Pleasure of the Interface" (1991), that almost all cyborgs in recent films are not only male, but *exaggeratedly* so (i.e., Arnold Schwarzenegger, Rutger Hauer, Jean-Claude Van Damme—the latter in *Universal Soldier* [1992]—or the excessive metal physique of Robocop). One of the few female cyborgs in recent years is in *Eve of Destruction*, (1991), but she is portrayed as acting out her creator's (a woman named Eve) sexual revenge fantasies against men (literally castrating one). Whereas the excessive male sexuality (which is evident not only in the body-type of the cyborgs but also in their penchant for extreme violence<sup>6</sup>—when only one bullet won't do) is legitimized or at least glorified in the films, Eve's is a threat that cannot be tolerated and has to be recouped by the forced return of scientist-Eve to a maternal, submissive role (p. 321).<sup>7</sup>

Springer (1991) argues that "[c]yborg imagery in films is remarkably consistent with [Klaus] Theweleit's description of the fascist soldier male. If anything, cyborg imagery epitomizes the fascist ideal of an invincible armored fighting machine" (p. 317). The ultraviolence of the fascist soldiers is attributed to a lack of self-actualization on their behalf: Their sense of self is fragile. Sexual intimacy threatens that identity, therefore they build (literal) armor against personal contact, and redirect the sexual drive into violence directed at others. Despite the overblown "maleness" of the cyborgs, there is a distinct distance, or lack of intimacy, between them and any of the female characters (sex is reserved for the humans, like Sarah Connor and Kyle Reese in *Terminator*).<sup>8</sup> This is exemplified in a scene from *Robocop* when a woman Robocop has just saved from two rapists hysterically embraces him, to which he responds only with the cold observation that she has undergone a distressing situation and he will notify a rape crisis center for her. Such intimacy (or compassion) would be supposedly dangerous to the fragile identity of Robocop. This intimacy also breaks an unspoken taboo against having sexual relations with a machine, though this seems to apply to "male" machines only, female androids and cyborgs are more directly sexualized, for example, Deckard's relationship with Rachael in *Blade Runner*—more on this below—and such films as *Cherry 2000* (1988), *Galaxina* (1980) and *Robo C.H.I.C.* (1990), *ad nauseam*. However, once he does assume an identity as Murphy, Robocop (in *Robocop 2*) still cannot reintegrate back into his family or establish a relationship.

In *Robocop 2*, Robocop is forced to deny his identity as Murphy when confronted by men who ask him (concerning his wife/widow): "Could you ever be a husband to her? What could you offer her? Love? A man's love?" (implying that a certain type of heterosexual sexuality is the only basis for a sound marriage). Realizing that he is thus emasculated (according to the society's criteria), Robocop denies any acceptance of human, male, heterosexual identity. His wife comes to visit him and he rejects her. Later on in the film, he does reassume the identity of Murphy, and at the very end of the film, he says to his partner, "Patience, Lewis. We're only human." His wife is never mentioned again. A parallel case is found in *T2* where Sarah Connor looks on the Terminator as a surrogate father for her son. This is only possible once the Terminator is "humanized" by her son and acquires more human sensitivities. The technological figures are seen as a threat to traditional masculinity and can be allowed male identity only through a thorough integration into a normative social role.

This transition is also a part of a transformation in masculine roles in Hollywood cinema in the early 1990s (Jeffords, 1993). These films reread earlier representations of 1980s macho heroics (*Terminator*, *Rambo*, etc.) as victims of social circumstance—they did not "really" want to be such unfeeling killing machines. By reintroducing "family" (a key term for the New Right) into the films of the early 1990s, the white male hero tries to recoup his losses while still retaining his privileged position.

Reintroducing the macho hero (often portrayed as machinelike) into the family reinforces the reintegration of war machines (ones defined as programmable, and value-neutral) into society. Though these war machines are repositioned, relocated, into a central role in society (says Sarah Connor of the Terminator in *T2*, "of all the fathers, this was the only one that measured up"), not much else has happened to change either the social structures of white patriarchy or the technological assemblage of nuclear war machines. The connection between the nuclear technological assemblage and patriarchy is clear in *T2* when Sarah Connor blames men for the H-bomb and Skynet. That film tries to move Men/Technology into the normative moral structure of the family—that is, a kinder, gentler machine (the Terminator in *T2* merely maims instead of killing outright); machines that can be reprogrammed, men that can be taught.

Intimacy would force a recognition of the sexuality of the cyborg, a sexuality that is being redirected into violence to preserve a fragile

identity. So, taking a warning from Samson and Delilah, the cyborgs preserve the domain of the ultraviolent and protect their identities. But the cyborg identities are fragile because they are caught up in a border war. Convinced on the one hand of one's innate superiority to one's slave, it is disturbing to the modern individual not so much to find oneself a slave but to find oneself *both* master and slave. The identity is thrown into crisis, I would argue, not merely by the threat of becoming a slave but by the realization (elicited by the cyborg's position as the border) that there is no border, that there is no difference, that the border (the dialectic) is a construction.

Lest we leap too quickly to call this a postmodern moment, we need to realize that the cyborg is not only a postmodern figure. For example, Craig Adcock (1983) argues that the cyborg figure in science fiction has interesting parallels with Dada art. The Dadaists, who were, admittedly, precursors of the postmoderns, were reacting to the conditions of Europe following World War I. Europe at the time seemed increasingly dominated by technology and death. The figure of the cyborg, in such a context, represents a nihilism, but also a radical freedom (which is perhaps a precursor to Haraway's coyote cyborgs). Adcock's argument soon falls into a version of technological determinism and essentialism when he argues that with the creation of technology, humans alienated themselves from the primeval garden. Perhaps, he ends, technology might allow us to return there someday. The importance of Adcock's view is that he sees the cyborg as a *modernist* construct. This view has to be kept in mind to counter the proliferation of cyborg-as-postmodern-condition analyses. The cyborg is not just the play of boundaries or the proliferation of embodied simulacra, but still retains strong links to modern institutions, structures, and drives. The cyborg identity is not a synthesis of human and technology, but rather is fragmented—the technical elements and the human elements in constant struggle. It is the monstrous hybrid produced by processes of purification, as discussed by Latour (1993), but it is still *modern*.

The space of the cyborg is not solely a space of postmodern abandon, but one infused with corporate capital and fascist patriarchy. The cyborg's space is the modern space of destruction and rebirth (via technology) that Marx first identified as when "all that is solid melts into air" (Berman, 1988). We cannot treat the cyborg as a new space, a new identity, that we can write to our own satisfaction. Haraway posits the cyborg as a struggle of patriarchal military origins and feminist marginal uses and positions. I wish to push this further. The cyborg is not new or unique,

but is forever and always in formal resonance with other technologies, actors, and systems. A cyborg is a becoming; and one of the multiple elements in that becoming is the modern itself and all that it implies. Likewise, if we think in terms of becomings, articulations, and territorializations, we are already involving Haraway's cyborg transgressions (animal/human, human/machine, physical/nonphysical, male/female) without being caught up in border wars over identity. Deterritorialization involves the opening up of one plane (be it chemical or ideological) onto another, crossed by a line of flight. Haraway's cyborg trickster is a minoritarian deterritorializing machine.

The cyborg in Haraway's work is then a very active quasi-object. Haraway's project is to *recognize* the hybrids that the modern has suppressed through its acts of purification. Her cyborg is a radical political figure deliberately bridging the purified categories (human, nonhuman; female, male, etc.) to bring about their collapse. But so long as the figure of the cyborg remains within Latour's modern constitution, indeed within his nonmodern constitution, it remains limited. As a nomadic presence patrolling the space of the fascistic, patriarchal modern, the cyborg is a useful figure in exploring the modern episteme. But if it itself retains the modern revolution, even in its postmodern form of hyper-revolution, and if it remains a figure fraught with the "border war" of human/nonhuman, and so on, it remains within the problematic of identity and it remains trapped in modern space with no means to construct a line of flight out. Realized as a minoritarian deterritorializing machine, the cyborg would step beyond this problematic (but then the term *cyborg* itself becomes problematic), but that formation is realized neither in recent films nor theory (the films working within the modern episteme and the theory, at best, within the amodern episteme of agency).

#### Booking a Ticket on the First Line of Flight Out: *Blade Runner 1: Identity*

There is at least one film from which we may get an inkling of a way out, and that is the 1982 film *Blade Runner*. Though the film presents many of the modern and postmodern tropes that we have been following in previous analyses, it still provides an adequate transition to a full consideration of a Deleuzian episteme.

*Blade Runner* isn't dealing with cyborgs but androids, which it calls replicants. The human/technology border is shifted, then, outside the human body, but this makes it no less problematic. If the Terminator films showed us the android as robot (as mechanized monster), *Blade Runner* shows us the android as human.

*Blade Runner*,<sup>9</sup> based (some argue very loosely) on Philip K. Dick's novel *Do Androids Dream of Electric Sheep?* (1968/1982), concerns the hunt for four renegade androids through a future Los Angeles. Replicants, artificial human beings, are indistinguishable from humans but possess far greater strength, agility, and whatever else their programmers desire. They are often used as expendable labor on dangerous off-world missions. Indeed, it is illegal for a replicant to be on Earth. As a safeguard (because they are superior to humans in so many different ways, and because they have the capacity to develop emotions over time), replicants are given a 4-year life span. At the start of *Blade Runner*, four replicants have stolen a ship and have returned to Earth to discover a way to counter the termination date. Harrison Ford plays Deckard, an ex-cop of a specialized nature: he hunted renegade androids (these cops are named *blade runners*). Deckard has retired from the force because he had grown sick of killing, especially since, it is implied, replicants became more and more human to him. Deckard is forced out of retirement by his superiors to track down these renegade androids.

*Blade Runner* collapses some of the human/technology distinctions by showing not only parallels between Deckard and the replicants (prey/hunter, machine/human) but also Deckard's increasing affinity with the replicants, culminating in his relationship with Rachael, the most "human" of the replicants.<sup>10</sup> Deckard is placed on a similar level with the replicants in that they are both subordinated to a higher corporate or institutional authority. The replicants are slave labor for an interstellar capitalist economy. Deckard is a hired gun; he is forced to take this last case or else he will become one of the "little people," and lose whatever small privileges he might have. Also, Deckard and the replicants are caught up in the dialectic of justice: criminal-police, their identities dependent on each other. Both carry the past as paraphernalia: especially photographs. Deckard as well as the replicants Rachael and Leon attach special significance to their collections of photographs (Rachael because it is "her" past, Leon because the photographs affirm his existence—which, as a machine, is generally regarded as ephemeral—and Deckard because, supposedly, they remind him of his ex-wife and all he has lost by choosing his career).

Deckard says he quit his job because he was sick of the killing. He prefers not to use the euphemistic term *retirement*. He presumably recognizes that the only test to differentiate between humans and replicants, the Voight-Kampff test (a variant on the Turing test for artificial intelligence), is unreliable and, in fact, based on culturally specific notions of what should provoke an emotional response from a human. By being an expert at the test (which would be a blade runner's real job, as opposed to the macho shootout method that occupies much of the film), Deckard sees how the barriers between human and machine have collapsed (and he also perhaps knows how he himself would answer the questions, and whether he himself would pass the test).

There are hints throughout the film that Deckard himself may be a replicant. In fact, this was an ending to one of the early scripts (Kolb, 1991). Such an ending explains the lurking presence of Gaff, a junior police officer who fetches Deckard at the start of the film and who always seems to be not far behind. At the very end of the film, as Deckard and Rachael are leaving Deckard's apartment, they come across a small origami unicorn that has been left by Gaff. This is obviously a reference to an earlier scene (shown only in the "Director's Cut") where Deckard dreams of a unicorn. But how could Gaff know Deckard's dreams unless they are implants and Deckard is a replicant? Such an ending radically undermines a central trust that is placed on the protagonist's humanity, and emphasizes the point that replicants *are* indistinguishable from humans. Not only this, it also reemphasizes the film's point about the ephemerality of history—that memories are constructions whether they are ours or someone else's.<sup>11</sup> *Blade Runner* here shows the same emphasis on time (especially the mutability of time) as *The Terminator*. In this case, it is the past that is changeable instead of the future. The ephemerality of memory results in an ephemerality of identity.

That identity is a central theme in the film is reinforced by a frequent use of eye-imagery. The I/eye pun is not unique to this film, but is used to problematize and indicate questions of identity. The film in fact includes an extreme close-up of an eye (blue, presumably Batty's) reflecting the cityscape in the film's opening minutes. An unnaturally glowing or reflective eye is indicative of an android (presumably because they don't have depth or a "soul"). We see this in the *Terminator* films as well. The replicants' preferred method of killing seems to be by putting out the victim's eyes. This action emphasizes the threat the replicants pose to human identity. The persistence of eye-imagery reinforces the importance of photographs (and therefore memory) in the film, and the tenu-

ousness of history and identity. Giuliana Bruno (1990), in an oft-cited essay, "Ramble City: Post-modernism and *Blade Runner*," takes this point further:

*Blade Runner* posits questions of identity, identification, and history in postmodernism. The text's insistence on photography, on the eye, is suggestive of the problematic of the "I" over time. Photography, "the impossible science of the unique being," is the suppressed trace of history, the lost dream of continuity. Photography is memory. The status of memory has changed. In a postmodern age, memories are no longer Proustian madeleines, but photographs. . . . Photography is thus assigned the grand task of reasserting the referent, of reappropriating the Real and historical continuity. (p. 193)

Bruno also argues that the film is "a metaphor for the postmodern condition" (p. 184). In particular, its use of spatial pastiche and temporal schizophrenia indicates the postmodern problematization of identity.

In the film, there is a focus on accelerated time: The replicants have only 4 years to live, but those 4 years are packed full of stunning experience. As Tyrell says to Batty, "a candle that burns twice as bright, burns half as long." The replicants' condition is paralleled with that of J. F. Sebastian, a genetic engineer who suffers from what he calls "accelerated decrepitude," and also paralleled with the "accelerated decrepitude" of the city itself. Bruno states that, "the psychopathology of J. F. Sebastian, the replicants, and the city is the psychopathology of the everyday post-industrial condition" (p. 185). The film is thus expressing what Fredric Jameson (1984) referred to as the "cultural dominant of late capitalism," which is postmodernism. It is temporality, especially, that is fragmented (over and above the urban pastiche of Los Angeles, 2019, the setting of the film), indicated not only by the accelerated decrepitude but by the focus on photography, memory, and history. The replicants may be, as Bruno argues, Baudrillardian simulacra, rather than mere doppelgängers as some have argued (for example, Francavilla, 1991). As simulacra, they negate both copy and original (Bruno, 1990, p. 188), which problematizes the human/machine differentiation. The temporal discontinuity of the replicants as well as the seriality of their existence (as numbers in a series) leads to a schizophrenic condition and the fragmentation of the subject. According to this argument, then, as a result of postindustrial conditions, replicants appear in representational spaces (striding across our movie screens) as so many schizophrenic ghosts, proclaiming the disassembly of human identity.

Humanity here is deterritorialized. What precious attachments, movements, or motivations were possible are thrown into question. But humanity is not (or does not seem to be) reterritorialized. Though both replicants and humans are still enslaved to capital, they are portrayed as being in almost perpetual rebellion. Granted, by rebelling *against* capital, one's actions are to an extent still determined by capital. But it is the corporate territorializations of identity (of Rachael, the renegades, and, presumably, of Deckard) that are undermined by the slavish self-consciousness. Leon's sense of nothingness leads him to collect and cherish photographs that he takes for concrete records of the past (and of his existence). Batty, at the end, echoes the experience of fear (as a slavish one), of the terror of nothingness ("Quite an experience to live in fear, isn't it?" He says to Deckard, "That's what it's like to be a slave"); and he states that, "all those moments [of his life, all his memories] will be lost in time, like tears in rain," which reminds us that only the Slave realizes History.

But Deckard's being a replicant undermines what is otherwise one of the radical statements of the film, and that is Deckard and Rachael's relationship. First, the film is very different from the other films we have been discussing in that in *Blade Runner* the replicants express a very definite sexuality. Granted, this is a sexuality of very specific stereotypical gender roles, especially for the women: Pris is a "standard pleasure model"; Zhora, though a "combat model," works as an erotic dancer;<sup>12</sup> and though we are unsure what Rachael's actual job is, her stereotypical 1940s feminine sexuality is unmistakable. This sexuality is manifested only as the object of the human voyeuristic gaze (i.e., Zhora's night club act) or as a relationship between two replicants, such as Batty and Pris. The women, even Rachael, have a very definite capacity for violence. It is only Leon who appears as the violent, asexual killing machine that we find in the other films. Deckard and Rachael's violent relationship (in which he dominates her)<sup>13</sup> seems to parallel Batty and Pris's. But if Deckard is a replicant then this parallel is without irony, an irony that would otherwise challenge the division between humans and machines.<sup>14</sup> The irony is heightened by the overt (over-the-top) genericity of the film.

*Blade Runner* articulates itself quite strongly to the style of film noir, especially the genre of the hard-boiled detective story. Deckard is the Sam Spade, Rachael the mysterious female client. On the level of costumes, set design, and atmosphere, the film resonates quite strongly with this genre (Doll & Faller, 1986).<sup>15</sup> One of the traditional characteristics of

film noir is the presence of a *femme fatale* stereotype, who is "noted for changeability and treachery" (Gledhill, 1980, p. 18). Christine Gledhill continues:

But in the noir thriller, where the male voice-over is not in control of the plot, and on the contrary represents a hero on a quest for truth, not only is the hero frequently not sure whether the woman is honest or a deceiver, but the heroine's characterization is itself fractured so that it is not evident to the audience whether she fills the stereotype or not. (p. 18)

The underlying categorical uncertainty of the film noir style resonates with *Blade Runner's* themes of human/machine differentiation. But the film also brings with it the problematic gender stereotypes of noir as well.

With the exception of *Star Wars*, *Blade Runner* is the earliest of the films discussed so far, and is perhaps one of the most radical critiques of the modern human relationship to technology that presents technology as being indicative of a crisis in Western human identity. However, this representation is quickly superseded at the box office by the macho heroics of *The Terminator*. The conservative if not reactionary character of the 1980s may explain this change in textual structures, with the resurgence of an essentialism of rather narrow vision, and with it a fear, mistrust, and hatred of the different, the other, the alien. The android of the Terminator variety is the preferred foil for audiences in the 1980s in that, though in *Blade Runner* replicants are our enemies because they are *like us*, the other androids, cyborgs, and robots are our enemies because they are *different*. The first recognizes that boundaries are permeable, the second tries to close them down again.

From the vantage point of the modern episteme, we can trace a continuing struggle over an assumed (and thoroughly constructed and specific) border between humans and technology, the state of which feeds into the relative territorialization of human identity. Though somewhat useful, such an analysis always ends up reinstating the categories that it struggles to overcome.

### - *Blade Runner 2: Agency*

If we are looking for a minoritarian deterritorializing machine, then our examination of these films is incomplete if it concludes only with the description of a crisis in human identity and an analysis of what identi-

ties are offered up to assuage this crisis (figures such as the muscle-bound, macho heroics of the Terminator or Robocop). Such is a doxological, modernist reading of the films. Rather than discussing the crisis of identity, we also need to consider the types of agency in the films.

Agency is produced. Agency is distributed unequally across social space. And agency is differentiated according to the workings of the modern (purification). *Blade Runner* offers us an insight into the workings of a differentiating machine in the figure of Deckard (and it is of no small significance for an analysis of this social space that it is a man that is performing the differentiating). One of the central structuring differentiations in *Blade Runner* is that between humans and nonhumans. The figure of Deckard shows us how that difference is produced. Deckard's function as a blade runner (to which questions of his status as human or nonhuman are irrelevant) is as part of the differentiating machine—it is to proclaim the object human or nonhuman. In this task, he articulates discourses on human/nonhuman to those of labor, slavery, criminality and deviancy. Hegemony is carried out through this machinic function in that in his speaking Deckard helps to maintain a particular spatial distribution of subjects, in this case that of Earth versus off-world colonies. The linguistic differentiation of human/replicant then positions the subject within a complex milieu: Replicants are not allowed on Earth. For replicants, being on Earth is a criminal act. This differentiating machine has effects on two planes: It differentiates and separates *bodies*, and it differentiates and separates *discourses*. These two planes are two types of agency; the first we will call *technology*, the second, *language*.

A second differentiation also cuts across the Earth/off-world divide, and that is of the normative and the deviant. "Normal" humans are encouraged to emigrate, leaving those sick (i.e., J. F. Sebastian), poor or deviant on the polluted planet. Note that replicants, as slave labor, are not in the space of the marginal but that of the normative—their function supports and maintains the normative status quo; their work allows the off-world colonies to function. Identity is reified by a territorializing machine, determining possibilities for movement and attachment. The restriction of movement off world, the attachment of marginalized peoples to the decaying inner city, and that of the upper classes to the off-world, is the product of this territorializing machine that works through class, race, and "humanity."

Normative space is dominated by the technological in this film. On one level, this simply means that the off-world colonies are artificially maintained. But on a deeper level, it means that technology has ex-

panded into almost every aspect of life. For example, we see Deckard commanding the Esper photographic scanner. His language here does have effects in that the device obeys his commands, but it is not the *discursive* as the earlier human/replicant differentiation was. Rather, his language is that of the device itself (granted, it is sufficiently sophisticated and flexible enough to not appear as if he's speaking a command language). It is not that his language is just similarly coded to that of the technology or is inseparable from it; simply, *it is the technological*. From the numbers etched on the snake scale to the control of devices, language is almost fully in the realm of technology in the film and works as part of the technological assemblage.

The level of the street, of the polyethnic margins, is different in that it is dominated by a shifting polyglot of diverse languages. But rather than resisting the normativity of off world social space, this anarchic space helps produce the artifacts and technologies that support the center. It is the cutting edge of deterritorialization for the normative formation. The entire social formation depicted in *Blade Runner* (off-world center, Earth margin) is a very modern one. The idea of the freedom of the streets or the revolution from the streets is a modern notion (Berman, 1988). Postmodern readings of the film (i.e., Bruno, 1990) emphasize only the ways by which the margins feed the revolutionary heart of the modern rather than working against it. In its depiction of social space, *Blade Runner* is obviously referring to the process of suburbanization and the ghettoization of the inner cities.

These processes are nothing new, and are central to Philip K. Dick's 1968 novel. In this way *Blade Runner* is merely carrying forward Dick's premise and sensibilities from the 1960s. That they still work in the 1980s shows that the process has not diminished. To say that the social space depicted in *Blade Runner* is coded, distributed, and territorialized by late industrial capital is hardly surprising (what *would* be surprising would be if it were not). What is significant are the ways the film differs from the novel, especially the suggestion that Deckard may be a replicant.<sup>16</sup> These differences open up the possibility of a Deleuzian episteme, an alternative to the modern. The many parallels between the replicants and Deckard show that both are subject to the same territorialization. What we need to recognize here is the territorialization, not just the differentiation, of identity, as well as the distribution of agency. Deckard's work as part of the differentiating machine separating normative space from that of the street (making sure that replicants don't cross over) is impor-

tant. That Deckard abdicates that responsibility, and he himself refuses to be judged, is the significance of the film. By refusing to acknowledge the power of the binary (by refusing to be declared human or nonhuman, by falling in love with Rachael irrespective of her status), Deckard draws a line of flight. This is not a flight out of the city and into the Green World as in the original ending (out of technology and back to nature, or, more significantly, out of the human space and back to a nonhuman one), because the city is not the problem. His destination is of no consequence at this point; to speculate on this is to establish a teleology that kills the line of flight. The significance is the line itself (a nonmodern line). What we have in the clash between the two endings of the film (Green World vs. Director's Cut) are two versions of the line of flight and two answers to the question of technology and identity. The first shows the conservatism of identity similar to *Robocop*—Rachael and Deckard flee to a different space—and the second shows a rejection of the question entirely.

#### Living Machines and a Shift in Social Space

The living machines in the films that I have been discussing are important not only for their representation of a human/ nonhuman split (and therefore insight into the construction of identity) but more significantly as a represented embodiment of human experience, of social space. These figures are literal sites of the stratification of technological and linguistic agency. Technology is condensed and embodied in the whirling mechanisms and the biomechanics of cyborgs, androids, and robots. Language is emphasized and reified in the juridical power of these figures (*Blade Runner*, *Robocop*).

For example, *Robocop's* technology is part and parcel of the technology present in his social space, from advanced robots to weapons technology and drug technologies. His behavior is completely programmed. He can literally plug into other technologies, which emphasizes the global interconnectivity of the technological assemblage.

Language in *Robocop* is juridical, like that of Deckard. Pronouncement of guilt or innocence is his function. Though he is just "a cop on the beat" and not an actual judge, his function is to identify nonnormative activities.

The struggle over the identity of *Robocop* reveals an anxiety about the move of juridical power to being primarily a technological function. Technology in this way is expanding its domain. We can see this shift as

a shift in agency. Decisions are made and action taken more through a technological assemblage than through the discursive assemblage that has been the basis for much of Western democracy. This shift can also be seen in the proliferation of Intelligent Agents Expert Systems and Artificial Intelligences designed to take over some human decision-making activities. The programs decide for us, according to their algorithms. It is not so much a problem of humans stepping out of the command loop (or being pushed)<sup>17</sup>—that would be a problem of identity. Rather the problem is *how* agency is carried out—either more through more traditional discursive structures (discourse communities, Habermasian public spheres) or more through the technological assemblage (where agency is enacted differently). It is never completely one or the other; agency always involves both technology and language. What shifts is the balance between the two, altering the formation of human social space. To eliminate either technology or language entirely would lead us out of human space.

Throughout most of these films, the greatest effectivity, apart from instances of juridical power mentioned above, has been technological, and the technological is resoundingly mute. In fact, language and dialogue are usually minimal. For example, in *The Terminator*, Arnold Schwarzenegger has very few lines (17 or so), most of which merely mimic other (human) voices or parrot others' lines. He is the silent menacing technological Other, eventually put in its place by technological means. In *T2*, however, much more emphasis is placed on the development of the Terminator's language—colloquialisms, and so on—in the drive to articulate him within more traditional discursive structures (to make him seem more human). Indeed, the focus of the film is the bringing of the Terminator back under human control through an exhibition of human linguistic agency. For example, John Connor declares that the Terminator "[is] not a Terminator anymore." This declarative action can be read here as an attempt to shift back from a more technology-centered agency to a language-centered one. The dominance of Language over Technology is a modern articulation, and we can then read *T2* as attempting to reestablish the Terminator within the modern.

We can now trace two trajectories of the figure of the living machine through the 1980s. The dominant one articulates with the resurgence in political conservatism in that decade in its particular focus on nostalgia for particular cultural forms and ideals. The second trajectory was not

taken up (as a blockbuster), though it has enjoyed cult status. That is the trajectory traced by *Blade Runner* (the *Blade Runner* of the Director's Cut; the first release ties the line of flight back to the popular conservatism), which maps technological discourse and human identity onto a noir frame. Noir, which subverts dominant Hollywood paradigms, here subverts the typical treatment of living machines on film by questioning the boundaries between human and nonhuman and eventually ignoring them altogether. But, as Gray, Mentor, and Figueroa-Sarriera (1995) write,

"soon, perhaps, it will be impossible to tell where human ends and machines begin." There are, after all, more important distinctions to make, between just and unjust, between sustaining and destroying, between stable and erratic, between pleasure and pain, between knowledge and ignorance, between effective and ineffectual, between beauty and ugliness. (p. 13)

What is ultimately revealed by our analysis here is a tension in the distribution of agency, in the relative territorialization of a specific form of juridical agency. Such a form of agency ignores the concreteness of the assemblage, the material spaces of the technological. Anxieties over predominantly technological agency are mapped onto anxieties over a particular technological assemblage—that is, the nuclear defense network, big science, the bomb. By the very modern process of purification, these technologies are radically separated from "humans"; this catches us up in the problem of identity and eventually the Master/Slave dialectic, which is where we started.

Hassan Melehy (1995) argues that these cyborg films "may be said to constitute a set, or an arrangement, or an assemblage, in the ways that they address and interact with the [technological] conditions [in which the phantasms are produced]" (para. 13). Melehy wants to argue that the films are an assemblage because they all are thematically concerned with technologies of simulation (and the problem of the simulacrum), but are also themselves dependent on special effects, film, and video technologies that raise the question of simulation. They are "participating in as well as criticizing" the conditions in which they are produced and shown (para. 12).

I also see the films as an assemblage, but related in a different way: they all engage a plane of philosophy, of concepts.

[Philosophical theory] is a practice of concepts, and it must be judged in the light of other practices with which it interferes. A theory of cinema is not "about" cinema, but about the concepts that cinema gives rise to and which are themselves related to other concepts corresponding to other practices, the practice of concepts in general having no privilege over others, anymore than one object has over others. (Deleuze, 1989, p. 280; cited in Melehy, 1995)

Following Deleuze and Guattari's (1994) notion of philosophy, the films can be seen as generating a set of concepts, which are a set of consistencies. In looking at films so far in the past two chapters, we have been mapping these consistencies across this set of films, especially looking at the cluster of concepts around the question of the human/nonhuman border. This cluster has obviously been a modern one.

These films do not "represent" contemporary social conditions in any direct or even indirect way. They are not metaphors for our post-modern condition or analogous to actual situations. That said, the assemblage of concepts generated by these films does not remain solely on the plane of cinema. That humans are becoming more cyborg everyday (Gray, 1995a) is not to be denied. Likewise, it is important to note—as Melehy did just above—that these films are literally technologically produced, often via computer technologies that are themselves encroaching on "human" territory (cf. Hayward & Wollen, 1993).

Thinking of an assemblage of concepts, indeed thinking outside of the modern, changes not only our filmic analysis but our entire methodology. Modernity has as much to do with methodology and epistemology as it has to do with the object of study. To be Deleuzian is to see the screen, the audience, the motion picture industry, as stratified. It is to stitch the filmic assemblage to the audience and to the representations playing themselves out on the screen. To be Deleuzian problematizes the very practice of "reading" a film (though this practice has been very useful in getting us this far, it must now be abandoned).

### Notes

1. Langdon Winner (1993) discusses this perspective's "lack of and, indeed, apparent disdain for anything resembling an evaluative stance, or any particular moral or political principles, that might help people judge the possibilities that technologies present" (p. 443). He writes that interpretive

flexibility, the key concept in social constructivist thought, "soon becomes moral and political indifference" (p. 445).

2. For example, Latour (1995) maps out the competing voices in a scientific expedition to the Amazon rainforest.
3. The term *actor-network* is not Latour's. It is a label attributed to these theories by others such as Michel Callon. Latour himself denies any cohesive "perspective" and would avoid this term (personal communication, October 11, 1994). I use it as a term of convenience.
4. On this notion of time, see also Serres, 1995.
5. Latour (1993) actually reverses Kant. Rather than positing Subject and Object and then "multiplying the intermediaries to cancel out distance between the two poles little by little" (p. 79), as Kant does, Latour argues that the Subject and Object poles actually arise out of the work of intermediaries. But why retain this framework at all?
6. Cf. William Warner's (1992) essay on Rambo, the male physique, and violence. Hassan Melehy (1995) argues that the violence associated with the cyborg is related to its position as transgressive: "The cyborg is usually violent; it is so in its essence, as it is the product of machinery making ruthless incisions into flesh" (para. 14). But this reading ignores the gendered nature of the violence and also, to my mind, reestablishes the modernist human/machine split, despite arguing for the progressive aspects of cyborg becomings.
7. Kirsten Marthe Lentz (1993) offers a similar reading of *Eve of Destruction* in her excellent article, "The Popular Pleasures of Female Revenge (Or Rage Bursting in a Blaze of Gunfire)." She writes that what is perceived to be the problem with the Eve cyborg is a lack of moral (male) rectitude: "It is therefore a film about a not-so-latent male anxiety about feminism (that its logical conclusion will lead women to kill sexist men). It is also a film about the pleasures that women may experience through the production of that very anxiety" (p. 380). *Programmed to Kill* (1987) also presents a female killer android. The cyborg in *Cyborg* (1989) is female but, though central to the plot, she is peripheral to most of the focus and action of the film. She is not presented as a fighter but rather as a mother-figure: She carries the data that will save humankind from a plague.
8. Darth Vader was obviously a sexual being once, fathering Luke and Leia—but once a cyborg, the only relation he has with a female is when he tortures Leia in the first film (which represents a displaced sexuality).
9. A good deal of what sense one makes of the plot, and how one interprets the film, depends on which version one has seen. There are currently (at least) three versions in circulation (on videotape and film): the film as it was originally released in theaters in 1982, a slightly longer "uncut" version that



simply adds more shots of violence, and a recent "director's cut." This last version, the one I will rely on here, makes some aesthetic modifications (it omits Deckard's noirish voice-over narration), lengthens some scenes (adding a sequence where Deckard dreams of a unicorn), and omits the last shot of the original version (Deckard and Rachael's air car zooming over a lush, green hilly landscape toward mountains [which, as legend has it, was an outtake—sans air car—from *The Shining*]). I prefer the final version, not because it supposedly adheres more closely to Ridley Scott's original vision (an instance of the fallacy of authorial intention), but because the film (to my mind) works more cohesively without the Hollywoodized escape to the Green World of the original. See Kolb, 1991.

10. The more recent film *Nemesis* (1994) attempts to parallel many of these themes but seems to deliberately muddy the waters of identity further.
11. Philip K. Dick deals with this theme of memory and identity in his short story "We Can Remember It for You Wholesale," the basis for the Arnold Schwarzenegger film *Total Recall* (1990).
12. Doing, presumably, erotic things with a snake.
13. See Doreen Massey's (1994, pp. 228-230) comments on the film's treatment of gender.
14. It would seem that, in *Blade Runner's* world, reproduction—even intercourse—is solely in the domain of technology; that is, the reproduction of the human race via tech-substitutes—replicants—and the fact that only replicants seem to desire to reproduce. This would reverse McLuhan's claim that humans are the sexual organs of the machine.
15. Deckard's voice-over, cut from the latest version of the film, is also characteristic of this genre.
16. Whether Deckard is a replicant or not is still the subject of much debate, despite the fact that the director Ridley Scott has mentioned that this is what he intended.
17. It has been one of the military's goals to remove the human component from the decision-making loop, and hence its development and support of computer systems and artificial intelligence research. See de Landa, 1991.

# 3

## Living in a Deleuzian World

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In building our minoritarian deterritorializing machine, let me note what I wish to hold on to from the previous theoretical discussions: the notion of artifacts as social actors, the construction of long networks, the deterritorialization of identity (the proliferation of hybrids), and the social construction of time. Technology is then a socially active hybrid that connects with others and bends space while being at the same time coded by abstract forces.

Let me take an example brought up briefly in Chapter 1, that of the railway timetable. To the modern episteme, the timetable is a temporal technology; it represents the rationalization of time (Carey, 1989). But from a spatial perspective, from the amodern episteme, the timetable is a technology for the distribution of trains in space (making sure no two trains occupy the same space, an event called a train crash). The timetable seems to concern the timing of trains only from the perspective of an individual (a modernist concept, based on the radically separate nature of the internal subject) standing at the platform (where trains seem to appear and disappear at set intervals). We get caught in the modern episteme if we think of this example in terms of individuals (people,

trains, platforms) and points (a point moving through space is a temporal concept in this episteme because it occupies a *succession* of positions). Instead, we as theorists need to think in terms of lines, vectors, and assemblages. The train is an assemblage within which we may trace the delegation of numerous social actors: the engine driver, the fuel, the track, the wheel, the landscape. The assemblage is not a random configuration but is coded according to particular hegemonies such as the capitalist market, which influences which points will be connected and what the trains will carry. Approaching a train this way is not to play what Haraway has called a "God-trick" (1993c). We are not the all-seeing objective eye; our vision is situated. We will never grasp the assemblage as a whole, nor should that be the objective of our analysis. Indeed, the goal of attaining the full birds- (or God's-) eye view reveals a management perspective, a particular teleology, and a specific set of interests. Our analysis must resist totality and recognize that vision is partial. The above example of the train gives us an idea of what to look for in an analysis. If we merely want to catch a train, then we need look no further than the timetable.

But we are still faced with problems in the second—amodern—episteme. For example, it seems as if agency is something equally distributed among the social actors in the above example of the train; agency is the basic element from which the analysis proceeds and every element is granted agency. All agents seem equal in this version of the train: The conductor seems no more important than the steel rails. Agency cannot be so unquestioned. How do we account for differences (even similarities) in agency, in the *distribution* of agency? And how do we do this without recourse to abstract macro-actors such as social forces, which Latour rejects? This is why I now wish to add to this methodology an ontology, a politics, and a sense of the formation of the social itself.

Technology is intimately bound up with the social but, at the same time, is not reducible to it. What I hope to gain by theorizing technology through the thought of Gilles Deleuze, Félix Guattari, Michel de Certeau, Henri Lefebvre, and to a certain extent Pierre Bourdieu, is a theory that recognizes objective material constraints as well as socially constructed constraints on the form and function of any technology; I wish to argue that hegemony is carried through technological systems not only through the discourse deployed by and around that system or by symbolic capital articulated to it, but through affective investment and material asignifying practices, structures, and constraints; and I wish to

argue that resistance is possible not through merely engaging with dominated places, structures, and technologies, but through an active reinvestment of affect and symbolic capital, *and* an active restructuring of practical, conceptual, and representational spaces.<sup>1</sup> Our minoritarian deterritorializing machine is always, already social, and its strides cross social space, span the technological, infiltrate our language, and impinge on our behaviors.

### Technology and Language

One thing to remember when considering questions of the social is that the social is not unique to human beings. Michel Callon and Bruno Latour (1981) point out that baboons (and ants and others) are social (p. 281). The social relations between them (baboons), relations of dominance, are direct, face to face. Though dominance and communication are carried out between bare bodies, the relations are still subtle and flexible. But these relations must be constantly renewed, recognized, and repaired by the baboons themselves because these relations lack permanence.

Deleuze and Guattari (1987) argue that technology and language are the two fundamental characteristics of human beings (p. 60). The use of both tool and symbol, or rather the *particular relation between* the use of tools and the use of symbols, is what makes human beings distinctive from other forms of life; their use in a particular relation *constitutes* human beings. Deleuze and Guattari write that technology and language are *stratified*, simply two different strata abutting each other, like in a geological formation. Therefore, what marks human existence is both language and technology *in a particular relation*.

They argue in this way to avoid reinstating the Kantian split between noumena and phenomena, and the resultant modernist prioritization of not only time but language. In contrast to the modern episteme, Deleuze and Guattari (1994) write that

Subject and object give a poor approximation of thought. Thinking is neither a line drawn between subject and object nor a revolving of one around the other. Rather, thinking takes place in the relationship of territory and the earth. Kant is less a prisoner of the categories of subject and object than he is believed to be, since his idea of the Copernican revolution puts thought into a direct relationship with the earth. (p. 85)

A Deleuzian episteme does not operate around a separation of subject and object, but of territorialization and deterritorialization. It is a materialism in that it is opposed to transcendence, to something *beyond* the Earth. For example, in this episteme we could see communication not as a process involving transcendental "meaning," but as an occurrence on a plane of sensation: Soundwaves, or light waves, are intercepted by the senses, and these cause chemical and electrical transformations in the brain. The soundwaves and the chemical transformations in the brain have a resonance, a homology, with each other; and in turn, these have resonances with the marks on a page, or a pattern of movement, or a physical structure (in this way, communication is said to have concrete effects).

But in saying this, I do not mean to fetishize the physical; Deleuze and Guattari (1994) refuse to reduce anything to a single plane, but rather argue for multiplicities. For example, they write that the brain is the junction of three planes, art, science, and philosophy (p. 208). These planes are those of sensation, coordination (in a mathematical sense of a coordinate system), and consistency, all of which open onto chaos, and all of which act to subjectify the brain.<sup>2</sup> The subject, then, is the product of these planes. It is not created in opposition to the external, but actually is an enfolding of the external (in the way that a cell appears to have a definite cell wall but is actually open to its external milieu) (cf. Deleuze, 1993). What is important here is the breakdown of the Cartesian separation of subject and object, and, by extrapolation, the denial of any Kantian prioritization of time over space. Philosophy, for Deleuze and Guattari (1994), is a plane of consistency in that its work is to produce concepts and a concept "refers back to chaos *rendered consistent*" [italics added] (p. 208). In their philosophical project, they seek to describe the resonances, the regularities, and the consistencies that they observe. In this way, theirs is a descriptive philosophy, not attempting to discover or establish a universal truth, but merely to report what they observe.

Returning to the question of human social space, according to Deleuze and Guattari both Language and Technology concern territorialization (as opposed to a modernist transcendence). The first question is, then, how are Language and Technology differentiated and organized into a relation? Deleuze and Guattari call the human plane a stratum—used in its geological sense as strata in a rock formation, layers and belts with only a surface between them, a surface of stratification. The layers are mutually determining. Perceived as almost immobile by humans, geological strata are in constant flux (emerging, shifting, breaking off—

different surfaces come into contact with each other). Strata are constituted by an articulation, the bringing together of content and expression. Technology and Language constitute the human (or anthropomorphic) stratum, and therefore they belong to the same double articulation. Deleuze and Guattari (1987) explain articulation like this:

Articulation, which is constitutive of a stratum, is always a double articulation (double pincer). What is articulated is a *content and an expression*. Whereas form and substance are not really distinct, content and expression are. Hjelmslev's net is applicable to the strata: articulation of content and articulation of expression, with content and expression each possessing its own form and substance. Between them, between content and expression, there is neither a correspondence nor a cause-effect relation nor a signified-signifier relation: there is real distinction, reciprocal presupposition, and only isomorphy. (pp. 502-503)

Content and expression are not necessarily connected, one is not necessarily determinate over the other, and the relation between them is never guaranteed. As layers in a stratum, Technology and Language are content and expression, therefore they are distinct and each has its own form and substance. In that they press up against one another, they necessarily presuppose one another and exhibit similar forms (they are isomorphic).

Technology is generally articulated into the position of content, Language into that of expression. What this means is, as far as humans are concerned, material reality is split into two, one part is considered content, the other expression. A caveat here: I would argue that this splitting of reality is not universal to all actors we call *Homo sapiens*. Remember that both Technology and Language are material and that their stratification (and their distinction) is *produced*. What Deleuze and Guattari are describing here is a particularly *modern(ist)* stratification (in that it is an accurate description of the dominant social space, which is a modern one). The modernity of this stratification has two consequences (at least). One is what Henri Lefebvre calls the decorporealization of space into abstraction.<sup>3</sup> Derek Gregory (1994) writes that "Lefebvre . . . concludes that *abstraction* is a leitmotif of capitalist modernity" (p. 382). Such a decorporealization allows the modern to ignore the effectivity of bodies, of the technological. But it ignores not only the body—a cultural construct—but also the experience of embodiment (Hayles, 1993b). This first consequence rests as well on the second consequence. I said above

that technology and language are *generally* articulated into content and expression respectively, but not *necessarily*. I wish to leave open what I see as the very real possibility that technology can act as the expression to a linguistic content, that it can embody the discursive. Indeed, without this allowance, this formation falls back on a modern materialism characterized by economic and technological determinism. *The description of the relation between technology and language thus becomes crucial to any analysis of the social.*

Both Technology and Language concern external manipulation and in this way are isomorphic. The distinction between the planes is that Language manipulates externals through "symbols that are comprehensible, transmittable, and modifiable from outside," and technology does so through external material manipulations or modifications in the external world (Deleuze & Guattari, 1987, p. 60). Technology, in this case, concerns the direct manipulation of real elements; and it consists solely of these aggregates of elements. Deleuze and Guattari write: "tools exist only in relation to the interminglings they make possible or that make them possible" (1987, p. 90). The relation between Technology and Language is that "the statements or expressions [Language] express *incorporeal* transformations that are 'attributed' as such (properties) to bodies or contents" (p. 504). These are transformations that are not brought about by physical manipulation (getting hit by a hammer or placed in a jail cell) but by other, more indirect means that lie within the complex assemblage that is Language—for instance, the above description of the resonances between particular soundwaves, chemical processes, and so on. For example, a transformation is achieved in one's physical ability to move freely once one is pronounced guilty by a judge. Incorporeal transformations are a contraction of a repeated—habitual—collection of corporeal events (Deleuze, 1994; Massumi, 1992). What is considered human is not based on an essence (the modern problematic of identity) but rather on this particular relation of technology and language. Deleuze and Guattari (1987) describe the human stratum like this:

Form of content becomes "alloplastic" rather than "homoplastic"; in other words, it brings about modification in the external world. Form of expression becomes linguistic rather than genetic; in other words, it operates with symbols that are comprehensible, transmittable, and modifiable from outside. *What some call the properties of human beings—technology and language, tool and symbol, free hand and supple larynx,*

*"gesture and speech"—are in fact properties of this new distribution [italics added]. (p. 60)*

Technology, as content, is called a machinic assemblage, and language, as expression, is an assemblage of enunciation (2987, p. 504).

The material or machinic aspect of an assemblage relates not to the production of goods but rather to a precise state of intermingling of bodies in a society, including all the attractions and repulsions, sympathies and antipathies, alterations, amalgamations, penetrations, and expansions that affect bodies of all kinds in their relations to one another. (p. 90)

Technology, then, is not reducible to production (as some vulgar Marxists would have it) but concerns the manipulation of relations between social actors ("actors" in Latour's sense, which includes both animate and inanimate objects). The assemblage of enunciation refers to regimes of signs, "to a machine of expression whose variables determine the usage of language elements" (Deleuze & Guattari, 1987, p. 90). Language concerns not simply *a Language* but the distribution of certain discourses in social space. For example, some segments of society have access to scientific discourse, others do not; some have access to "received" English, others do not. That distribution reflects primarily the social structuration of economic, cultural, and symbolic capital (Bourdieu, 1990).

We can understand Language to be similar to what Foucault calls the discursive (Deleuze & Guattari, 1987, p. 66). It is the ability to have effects at a distance, and not just meaning and signification. For example, a judge pronounces the accused "guilty" and the accused becomes a criminal and is then in a very different set of material relations, all without a direct material transformation; it is an incorporeal transformation that is then "attributed" to the body (1987, p. 504). But though it is "incorporeal," it is thoroughly material. It is, as I said above, a contraction, a habit. The question of a transcendental "meaning" is nonsensical in this episteme. Language can be understood as a system of signs. For example, in Roland Barthes's work, fashion is a system of signs but not necessarily a system of "meaning" (the particular signs do not have direct "meanings"). But, nonetheless, fashion is material with material effects.

I want to make a point here regarding terminology. Technology as an intermingling of bodies is somewhat broader than (and certainly different from) the commonsense notions of technology that we have been discussing previously. These would be modernist notions of technologies as artifacts or systems. The two definitions, Deleuzoguattarian<sup>4</sup> and commonsense, are of course related. When I write "technology," I mean both, though at times I might mean more of one than another. When this occurs, I will use "Technology" for the Deleuzoguattarian sense and "technology" for specific instances. What I hope to do by conceptualizing technology in both senses is to set up a productive tension between them, even when the senses are at odds.<sup>5</sup> A similar practice will be used for "Language" (having an effect at a distance) and "language" (words or specific languages like English). Through this productive tension, I hope to allow a transition from a modern to a Deleuzian episteme.

How, then, are Technology and Language actually brought into relation and how does that relation vary or change? The articulation of Technology and Language into the diagram (the relation of the stratum) is the function of a *machine*. A "machine" is what perceived regularities in the material are attributed to. For example, we notice that the material world is regularly and fairly consistently divided into what we are calling the Technological and the Linguistic. There is no general (or macro) force achieving this (no hand of God, no social forces, no universal nature), but it is still achieved in individual instances. What we then posit is an abstraction (that does not exist in the actual) that is machinelike in its function in that it produces regularities. We call this generally an *abstract machine*. It does not exist, but we can note (and feel) its very real effects (the machine exists solely in its effects). I feel this is what is missing from Latour's analysis: some attempt to come to grips with the regularities that are perceived within and between actor-networks. In an attempt to avoid imbuing an abstract, macro-actor with agency (an important move, nonetheless), Latour ends up ignoring some very real effects.

A machine, then, is an apparatus of functions that redirect flows (the flows that are redirected have already been redirected by other functions, etc.) (Deleuze & Guattari, 1983, p. 36). A function is a singularity, a point at which a flow suddenly becomes organized. Manuel de Landa (1991) defines abstract machines as "mechanism-independent, structure-building singularities" (p. 18) and uses the example of a flow of liquid or energy:

A liquid sitting still or moving at a slow speed is in a relatively disordered state: its component molecules move aimlessly, bumping into each other at random. But when a certain threshold of speed is reached, a flowing liquid undergoes a process of self-organization: its component molecules begin to move in concert to produce highly intricate patterns. (p. 15)

I disagree with de Landa that a machine *is* a singularity, but rather it is an *assemblage* of singularities, an apparatus that consists of singularities. The machine we are concerned with in the formation of the anthropomorphic stratum is a stratifying machine that redirects flows of Technology and Language into a relation of power that constitutes a strata. The stratifying machine produces abstract value, one term is valued over the other; the relation is a positive, productive one, not a negative one based on difference. Linguistic coding tends to take precedence over technical forms and potentials (pushed to an extreme, this becomes the view that technology is totally socially constructed). But the precedence of Language is simply the result of the current (modern) social formation, the current stratification. In that Language acts on Technology (Expression acts on Content), this has been read that expression overpowers content (e.g., Massumi, 1992, p. 152 n. 36). But Technology is far from passive. The focus on language masks technological forms, especially those that do not relate directly to meaning (those are not assigned value and are assumed, taken for granted). That focus also elides the fact that the distribution and action of the technological as intermingling of bodies is different from linguistic forms and distributions. In Deleuze and Guattari's example of Foucault's work on the prison, the content-form of the prison (with its relations to schools, hospitals, etc.) is in relation to the expression-form "delinquency" (with relations to law, social norms, etc.; Deleuze & Guattari, 1987, pp. 66-67). A focus on just "delinquency" misses the plethora of nondiscursive practices of the prison-form, and the ways these practices relate to those in the factory, barracks, and so on. We lose the chance to describe

a single abstract machine for the prison and the school and the barracks and the hospital and the factory . . . a whole organization articulating formations of power and regimes of signs, and operating on the molecular level (societies characterized by what Foucault calls disciplinary power). (p. 67)

But the strata are more complex than just the (double) articulation of Content and Expression. Both Content and Expression have their own substance and form. Substances concern territories, forms concern structures of codes (p. 53). Regarding technology, then, substance is an aggregate of molecular compounds; form is how they are arranged. Substance is an aggregate of silicon, gold, copper, and so on; form is the computer microchip. Forms are organized (coded) by a second machine, a differentiating machine that arranges the aggregate of substances or artifacts according to its function.<sup>6</sup> It grids and structures the strata, establishing relations of difference and negativity.

As a plane of content, technology can also act as a plane of expression to another plane of content (articulated by another machine), and so on (Deleuze & Guattari, 1987, p. 53). These strata are called *epistrata*. For example, the computer microchip is content to a certain expression (program speed, memory space), but at the same time the microchip is the expression of another content (silicon, military and industrial needs), and so on. In this way, any technology is necessarily part of a *system* of technologies, a system with both human and nonhuman actors. A technology services or supports other technologies and is similarly serviced or supported. The relations can be those of delegation but, put more broadly, are those of articulation, and are machinic. One could map the chain of these articulations not only through the technological strata but also through chemical and biological ones as well, where forms are determined by, for example, genetic codes or the possibilities for chemical articulation (what molecules bond in what way with what other molecules, etc.). Hence, in the example of the train that opened the chapter, discussions of the molecular compounds of steel about the manufacturing industry, a colonial and imperialist network of exchange, and the organization of labor.

The point I wish to make here is that the forms a technology takes and the potentials it has are multiply determined by such diverse factors as molecular compounds, social needs, and other technologies. For example, the form (size, configuration) of a computer microchip depends on several things. On the one hand, the properties of the molecular substance involved (i.e., silicon) limit or allow electrical resistance to a certain extent (which makes silicon appropriate for this function), and it also allows miniaturization to a certain extent (it can be sliced into very small, very thin pieces that still retain desirable qualities—not too soft or brittle). On the other hand, manufacturing and other support tech-

nologies also constrain the form to a certain range of acceptable forms: The silicon can be made only so pure, sliced only so thin, and so on.

The form of a technology will have resonance with similar forms of other technologies and technological systems. There are no singular forms, only multiplicities (which collapses the distinction between Technology and technology). Deleuze and Guattari term this field of resonances, or aggregate of similar forms, *parastrata* because they are never of a stratum themselves but instead form their own strata. For example, the form of any particular microchip will have a resonance with other microchips as well as circuit boards, logic diagrams, and so forth. Also the form of a technology will be in accord with the forms of the technologies it supports (i.e., the computer into which the chip will be placed).

In another example, most automobiles share a certain standard set of features (e.g., four wheels), have roughly the same shape and formation. Even the most futuristic visions at Detroit auto shows still look fairly carlike. There is no car that is completely unique.<sup>7</sup> One could argue that this is because "car," as a linguistic and conceptual category, by definition refers to particular forms and features. However, even acceding this point, there is no form or feature of that car that is not isomorphic with other technologies. In short, *there is no technology that is 100% unique*.<sup>8</sup> At best, a technology can articulate an aggregate of disparate forms (cars that fly or are amphibious). Such technologies establish resonances between different strata and articulate them together. But their forms are still resonant with other forms (airplanes or boats) and the coding and territorialization (to an extent) of those forms.

The anthropomorphic stratum is in this way marked by a differentiating machine that forms and organizes substances. The differentiating machine arranges artifacts (and people) in space, in spatial arrangements, by *extensive* movement. People of different ethnicities are distributed across geographic space (nations, cities) in ways that are far from random. Production facilities likewise have an unequal distribution internationally. The same goes for consumer products—all distributed according to what Bourdieu (1990) calls objective structures, which are objective relations. Actors, he argues, are distributed according to the quantity and type (economic, symbolic, cultural) of capital they possess, and how that capital is distributed in their society.

There is yet another machine, a territorializing machine, which also works on the stratum.<sup>9</sup> The territorializing machine invests substances (formed matter) with intensity (such as affect), which sets the possibili-

ties for mobility or attachment. Processes of territorialization intensify particular formations; the territorialization of any substance is always relative and always in process (Deleuze & Guattari, 1987, p. 54). Processes of deterritorialization de-intensify particular formations and so cut across the strata. These processes open the stratum onto other strata, onto mythic territories, or onto abstract machines (and here we begin to see the first signs of our minoritarian deterritorializing machine).

Up until now, I have been referring to both strata and assemblages interchangeably, but they are different. Though assemblages are produced in strata, they assume territorialization and are grounded where matter (the Earth) has been decoded and territorialized (Deleuze & Guattari, 1987, p. 503). Though developed on this stratum and anchored there by the relation of content to expression, these assemblages "permeate all of the strata, and overspill each of them" (p. 504). Thus, the technological ranges across the physiochemical and the organic strata as well.

The territoriality of the assemblage originates in a certain decoding of milieus, and is just as necessarily extended by lines of deterritorialization. . . . Following these lines, the assemblage no longer presents an expression distinct from content, only unformed matters, destratified forces, and functions. (Deleuze & Guattari, 1987, p. 505)

The machinic assemblage (technology) is often not seen as distinct from the assemblage of enunciation (language) because of an *investment* in the articulation of a particular structure of coding on both the technological and linguistic strata. For example, the military territorializing machine invests economic value in a particular technology or aggregate of technologies that meet its needs (e.g., in Numerically Controlled machine tools to construct its weapons, and eventually computers of a certain type [cf. Noble, 1986]). At the same time, it invests conceptual value in structures of language having to do with efficiency, productivity, technicism, and so on, which likewise legitimate and further the military's needs.

Territoriality refers to intensities. Though the differentiating machine distributes particular consumer products to different locations (BMW's here, VW's there) and produces relations of value, it is the territorializing machine that marks that place with intensive investment (e.g., affective attachment to a Saturn automobile [accompanying an

economic investment], to unions, or to rock 'n' roll). When I talk of a deterritorializing move, I mean the breaking of such an attachment. It is "the movement by which 'one' leaves the territory" (Deleuze & Guattari, 1987, p. 510). Each deterritorialization is always accompanied by a reterritorialization, a reattachment to different sites, actors, and so on; a reestablishing of the territory through other means (e.g., by capital rather than law); and a reintensification of a different form of that matter.

The territorializing machine also marks lines of movement, escape, flight. In this second move, the machine opens up places onto other places, connects social milieus (or shuts them off). "[Territorializing machines] produce daily life as the way in which people live the always limited freedom to stop in and move through the various realities within which their identifications, identities and investments are mutually constructed" (Grossberg, 1992, p. 106).

### Social Space

The articulation of technology and language, along with adjacent para- and epistrata (the resonant aggregate of technological forms and multiple [double] articulations of molecular and support technologies), is always multiple. There is no unique form or substance, code or territory. Forms resonate with other forms, territories open up onto other territories. Assemblages are always aggregates, strata are always multiple, and human space (actualized through the articulation of technology and language) is always social space.

Content [of the double articulation of technology and language] should be understood not simply as the hand and tools but as a technical social machine that preexists them and constitutes states of force or formations of power. Expression should be understood not simply as the face and language, or individual languages, but as a semiotic collective machine that preexists them and constitutes regimes of signs. A formation of power is much more than a tool; a regime of signs is much more than a language. (Deleuze & Guattari, 1987, p. 63)

What I am calling social space, then, includes the articulation of machinic assemblages (technology) and assemblages of enunciation (language). That (double) articulation defines specifically *human* social space. Social space in general *precedes* the articulation (baboons are social, too), but this

is not meant in a temporal, historic sense. Social space is prior to human technosocial space but inseparable from it. For ease of terminology, when I refer to social space, I will mean *human* social space. Social space, then, consists of both that which subjects directly manipulate physically (Technology) and that which they manipulate incorporeally (Language).

As actor-network theory argues, technology is always a social actor. Both animate and inanimate actors bend space around them (Callon & Latour, 1981, p. 286). Social space is a network of relations between actors (animate, inanimate, or both) that are themselves aggregates and themselves the result of an abstract machine of stratification. These relations are structured through the workings of the technical social machine, the semiotic collective machine, and differentiating and territorializing machines—all interconnected, mutually determining. Positioning the workings of abstract machines here corrects, but does not contradict, Latour's nonmodern world. Abstract machines are not somewhere outside his continuums, and do not reside in the empty poles of Object or Subject. They are not abstractions in the sense that Latour wants to label rationality, for example, as an abstraction. Deleuze and Guattari (1987) write: "There is no abstract machine or machines in the sense of a Platonic idea, transcendental, universal, eternal. Abstract machines operate within concrete assemblages" (p. 510). Abstract machines are abstract in that they "consist of *unformed matters and nonformal functions*" (p. 511). "They are always singular and immanent" (p. 510). They arise from (and consist of) the network itself. The introduction of abstract machines is a corrective to Latour and actor-network theorists in that it is through the machines that actors are comprised, distributed, valued, lived, and connected. Agency is not a given, but is distributed, differentiated, and territorialized. The resultant actor-network can then be examined and analyzed without falling back on the problematic notion of a rational network builder.<sup>10</sup>

Social space is not just discursive patterns or "imaged," "imagined," or symbolic communities (Anderson, 1983); but neither is it only physical aggregates of individuals and constructed space (i.e., people walking down a city street). Social space is the stratification of the two and can be described as a series of actor-networks. This articulation is never guaranteed and the relation between the two is never necessarily the same. Social space (by which I mean human social space) always consists of Technology and Language in particular configurations. But it also means something in addition to this configuration. It also means the

embodiment of that configuration; by *embodiment*, I follow N. Katherine Hayles (1993a) in defining it as contextualized experience: "embodiment mediates between technology and discourse by creating new experiential frameworks that serve as boundary markers for the creation of corresponding discursive systems" (p. 163).

Let us consider a technology (for the sake of argument: a manual coffee grinder). Picture that technology. We can then map plane after plane that intersect that technology, and that technology, as we initially pictured it sitting on the kitchen table basking in the first rays of the early morning sun, dissolves. Though it is undeniably important as a critical analyst to understand and to be able to trace the relations of its German manufacturer, the economics of unequal exchange between Third World coffee growers and industrialized suppliers, and the aesthetics of taste isomorphic with the shape and size of the screws of the burr grinder so that the resulting coffee is of a particular consistency, and so on, it is also undeniably important to retain hold of the grinder itself (especially if one wants to make a cup of coffee). And we do this through the concept of *contraction* or *habit*.

Our "lived present" is the contraction of the successive moments of time;<sup>11</sup> it is a synthesis of these moments. Habit is contraction not in the action of that contraction but in the contemplation of that action ("the fusion of that repetition in the contemplating mind" [Deleuze, 1994, p. 74]). Habit, then, "concerns not only the sensory-motor habits that we have (psychologically) but also, before these, the primary habits that we are; the thousands of passive syntheses of which we are organically composed" (Deleuze, 1994, p. 74).

Habit is a contraction in that the steps of that action are taken for granted after a while. For example, after several uses one might not be aware of all the steps and movements necessary to grind one's coffee. Or, in another example, if one smokes one might discover a lit cigarette in one's hand without being especially conscious of having lit it—the actions of removing the cigarette case, removing a cigarette, placing it just so, fumbling for the lighter, igniting the flame, lighting the cigarette, and inhaling just so become contracted. But habit is not just the aggregate of these actions but the fusion of them in the mind: The thought produces the chain of actions but fuses them.

Technologies—particular artifacts or services—are habits, are contractions of action, substance, and thought, a condensation of technology and language. We grasp technologies as *molarities*. We take a hammer to



be molar, to be one thing, a whole. But it is actually contracted (compressed) molecular structures that are *differentiated*. The wood of the handle and the metal of the head have *grains*; they are stratified. These differentiations can often be ignored by the molarity (one can use the hammer for years and never notice the grain). But *molecularity* always involves some degree of *entropy*. Molecularity—entropic—reasserts itself when a threshold is reached and the differentiation of the handle becomes dominant and the handle breaks, not surprisingly, along the grain. The head itself breaks according to the differentiations in the make up of the metal—along the molecular grain or lattice.

In a similar way, though social space is stratified, we often grasp only its molarity. Social space—the habitual molar contraction or grasping of space—is produced through habit. Paul Connerton, in his book *How Societies Remember* (1989), argues that habits are both technical abilities that are at our disposal and affective dispositions. Habits are particular practices that reflect a history of repetition or repeated action. Habits are not just signs, Connerton argues, but bodily practices. Knowledge (of practices, in other words, habits) is, therefore, bodily as well as cognitive. Our social space is made up partly through habitual action, and is a bodily space as well as a cognitive one. Connerton then opens a way of understanding the sense of the technological agency by not falling back into notions of a rational individual (agency as conscious action) as the explanation for the social or for action or agency. Connerton writes: “we remember . . . through knowledge bred of familiarity in our lived space” (p. 95).

Communication and information technologies are especially important sites for analysis in that they appear to embody both technology (the device) and language (the content broadcast or transmitted). This makes them often difficult to analyze in these terms—though crucially important—because they seem to slip to one side or the other like a watermelon seed. On the one hand are those who look solely at the technology and often approach from a technological determinist perspective. For example, Marshall McLuhan argues that it is the medium and not the message that has effects. In many ways, for McLuhan the message (content) is irrelevant. Another similar approach is the technician, or engineering, view that sees the problems of communication as technical problems (Shannon and Weaver [1949] are germinal here), a view that has had significant consequences on the study of communication. We will discuss the consequences of the technician view in the next few chapters.

On the other hand, communication technology tends to disappear. After a while, we don't see the television set anymore, just the programs (O'Sullivan, 1991). And, therefore, the medium itself is absent (or receives only a cursory glance) in much communication research.

How do we grasp hold of this problem and not lose either dimension? How do we understand communication as a contraction of technology and language? Let us take the example of a community in cyberspace. My problems with the utopics of cybercommunities (e.g., Rheingold, 1993) has to do with their ignoring the constraints that the technology itself brings to those interactions. I am not arguing against cybercommunities (that they exist or are useful); that would be silly. Indeed, the new Internet technologies have allowed disparate, geographically dispersed groups to form for political (networks that quickly send information on human rights abuses around the world), artistic (Internet groups have influenced the direction of TV shows and rock bands), emotional (support networks for people whose spouses or parents have Alzheimer's), and personal reasons (the connection of families, friends, and neighborhoods), all of which are wonderful. But in any cybercommunity, there are always members who are silent and go unnoticed—the computers, hardware, software, and wiring technologies themselves contribute to the shape, character, and inclusiveness of the group. Minimally, these constraints are economic (affording a computer, phone bill, and connection fee to a local Internet provider), spatial (literally having a room to put the computer in, or space in that room), and leisure-related (one must have the *time* to contribute).<sup>12</sup> These constraints are not absolute and can be overcome (e.g., with public terminals). And for many groups, these concerns are irrelevant. But to make that decision—that these concerns *are* irrelevant for *that* group—the questions must at least be posed; often, they are left out of consideration entirely because of the transparency of the medium. As social space, the Internet—or, rather, its communities—is produced through habit, both the linguistic habits of repetitive characteristic phrasing or shorthand (BTW, LOL, FYI) and technological habits of typing, of the hardware and software “preferences” of configuration, of bodily posture, and so forth. To grasp this space is to address both of these dimensions: the articulation of the machinic assemblage to an assemblage of enunciation, the machines we use and how we talk about them or think about them. To do this would be to explore the *embodiment*, in Hayles's phrase, of cyberspace. The next chapter will attempt to take such an analysis further.

Habits—and technologies—are not innocent, however. As Andrew Feenberg has argued, the condensation of technology and language “brings the construction and interpretation of technical systems into conformity with the requirements of a system of domination” (Feenberg, 1991, p. 79). He refers to this social coding of technology (the *parastrata*, a function of form) as the “technical code” of capitalism. “Capitalist hegemony, on this account, is an effect of its code” (p. 79). The code coordinates the social and technological along the lines of the dominant hegemony.

Feenberg cautions that “it is important to keep in mind that the parts of an invention . . . have a technical coherence of their own that in no way depends on politics or class relations” (p. 82). The whole (Feenberg’s example is the assembly line, but could just as well be a computer network or broadcast television system) is made up of parts that have a logic all their own and are not dependent on the whole. Where the large-scale sociotechnical network may reflect the interests of the dominant group, economic formation (capitalism), or philosophical bias (rationality), the elements of which it is composed do not necessarily reflect that same domination to the same extent. “The lower we descend toward the foundations of rational institutions, the more ambiguous are the elements from which they are constructed, and the more these are compatible with a variety of different hegemonic orders. This is the source of the ambivalence of technology” (p. 83). In Deleuzian terms, we follow the stratifications in the direction of increasing deterritorialization. This ambivalence Feenberg calls the “margin of maneuver.” Our mappings of social space become political, then, in that they seek a less dominated space in which to stand, when we advocate a molecular politics.

### Resistance, Flexibility, Margins of Maneuver

Social space preexists and presupposes the actor (we live in social spaces but not those of our own making). Individuals experience space “as an obstacle” that is difficult to transform. “This pre-existence of space conditions the subject’s presence, action and discourse, his [*sic*] competence and performance; yet the subject’s presence, action and discourse, at the same time as they presuppose this space, also negate it” (Lefebvre, 1991, p. 57).

In what way does the individual negate space? What is the margin of maneuver allowed for resistance? Michel de Certeau (1984), theorizing resistance, contrasts “style” with “use” (p. 100). *Style* refers to the singular processing of symbols or practice. *Use* is normative and refers to socially structured codes. One’s “style of use,” therefore, is the way one processes normative social codes in a way that is singular and irrepressible. In this way, style can easily be overestimated as a theory of resistance. It seems that when dealing with language, with symbolic or representational space, more room for maneuver or variance is assumed or theorized. However, when dealing with technology itself, most people seem to “utilize” artifacts according to normative rules rather than “use” them with any potential for resistance (a terminological distinction by Langdon Winner [1977, p. 229]). “Use,” in this case, refers to “the whole line or sequence of thought, action, and fulfillment” (Winner, 1977, p. 228). It involves mapping the multiple articulations and codings, strata, *parastrata*, *epistrata*, and territorializations of technology. This division is apparent in the anxieties over whether individuals using the new Information Superhighway will become mere consumers (utilizers) or will be more productive, have more individual agency (users).

We cannot say, however, that the potentials of technology are actualized through use or utilization. They are always already actualized by virtue of the workings of the machines of power. In other words, the normative structure and function of the new technological assemblage will be set long before individual users figure out their degree of autonomy, before they even enter the picture. But the norms of the system are not just technologically driven but are social and economic as well. The specific *ways* in which these potentials are actualized depends on the use/utilization distinction, which in effect describes in part the state of that particular articulation. *Utilization* describes a space overpowered by normative codes, while *use* describes the mapping of new vectors across strata. Resistance, then, depends on vectors, lines of intensity, drawn across both language and technology and from them to other strata; opening technologies onto other technologies, other languages, other forms, and so forth. Resistance solely through language can be effective, but it ignores the level of practice and artifacts and their role in the creation of social space.

To grasp these levels together is to acquire a habit; habitual social space is the *habitus*.

Constructing the notion of habitus as a system of acquired dispositions functioning on the practical level as categories of perception and assessment or as classificatory principles as well as being the organizing principles of action meant constituting the social agent in his [sic] true role as the practical operator of the construction of objects. (Bourdieu, 1990, p. 13)

The social agent acts technologically, linguistically, and conceptually, contracting these strata or planes. There is no separation between agent and social space. Therefore, the hegemonic codings of technology and language, the character of social space, are internal as well as external. Resistance is not the struggle of a pure interior against a domineering external space (a modernist reading); it is not simply the rebuilding or rejection of tools and machinery; it is not simply the recoding of language; it is not simply thinking radical thoughts. Resistance must take into account our own habits. Habits are not simply repeated action, not simply a repetition or the endless recurrence of the status quo because each iteration, each action, is unique: "Habit *draws* something new from repetition—namely difference" (Deleuze, 1994, p. 73). Within habit lies repetition and difference. The *difference* of habit (a *positive* difference) is our foothold; it is our margin of maneuver.

What margin of maneuver is open depends partly on the configuration of social space, the aggregates, assemblages, and actors that are enlisted and distributed in particular formation. That configuration of social space is embodied in our habits, and our margin of maneuver begins in individual practice. But this is not to say that social space is just the space of practices. Henri Lefebvre outlines three concepts that are useful in understanding our relations to the social spaces we inhabit. What is important to remember is that social space is the grasping of all three at once.

Henri Lefebvre (1991) argues that there are three interrelated concepts that need to be addressed to approach modern social space: *spatial practice*, *representations of space*, and *representational space* (or space as it is perceived, conceived, and lived). We can think of these terms as an alternative stratification of social space. Taking these concepts in turn, spatial practice

embraces production and reproduction, and the particular locations and spatial sets characteristic of each social formation. Spatial practice

ensures continuity and some degree of cohesion. In terms of social space, this cohesion implies a guaranteed level of *competence* and a specific level of *performance*.<sup>13</sup> . . . A spatial practice must have a certain cohesiveness, but this does not imply that it is coherent (in the sense of intellectually worked out or logically conceived). (Lefebvre, 1991, pp. 33, 38)

Spatial practice is the most technological of the three aspects of social space, but not all spatial practices are technological. They combine tools and language to ensure the continued existence of the social order. Spatial practices can give rise to a need for a new technology or the reformation of an old technology. Such practices also stabilize and reify particular networks. In terms of the social space discussed here, these are the practices that engage us with cyberspace—talking on the phone, running a computer, interacting with an ATM.

*Representations of space* are abstract, conceptualized space. "This is the dominant space in any society (or mode of production)" (Lefebvre, 1991, p. 39). In the modern industrialized world, this space is usually scientific and technocratic. Therefore, if the mode of production is rational, technophilic, and efficiency oriented, then conceptual space will reflect that and the world will be conceived of as mechanical (e.g., early systems theory). For example, we would be told that our minds work like computers rather than vice versa. Such a suggestion betrays a particular stratification (content: computer; expression: brain) and thus reveals certain investments in technicist, rationalist forms of thought and language. Representations of space—or, space as it is conceived—is the plane of concepts. It is this plane that allows us in this book to trace a new technological neutrality across television shows, films, policy discourses, and museum exhibits. The shift in the dominant notions of social space occurs on this plane and repercussions both practiced space and representational spaces.

*Representational space* is:

space as directly *lived* through its associated images and symbols, and hence the space of inhabitants and "users." . . . This is the dominated—and hence passively experienced—space that the imagination seeks to change and appropriate. It overlays physical space, making symbolic use of its objects. Thus representational spaces may be said, though again with certain exceptions, to tend toward more or less coherent systems of nonverbal symbols and signs. (Lefebvre, 1991, p. 39)

Representational space is most often related to Language, to the incorporeal (i.e., symbolic systems). But it can never be divorced from the Technological. Social constructivists attempt to collapse all of social space to this dimension alone. It is the symbolic plane of social space.

Social space, as the aggregate of space as perceived, conceived, and lived, actualizes only through the articulation of technology and language. We cannot make any easy distinctions such as: technology = practice; or conceptual and lived space = language. These relations are not equivalencies. Not all practices are technological, and not all lived space involves either language or symbols, and so on. The stratification of technology and language cuts across any formation of social space.

One negotiates social space like one approaches a walk through a city (de Certeau, 1984). Keeping in mind, however, Lefebvre's three concepts of social space, we have, first, the *practice* of walking or traversing (by taxi or other transportation) the city. Second, in mind is an abstract map, a conceptualization of the space according to a particular "bird's-eye view" that reveals only the streets, or only the subway system, only the trendy downtown shopping district, or only the main thoroughfares to affluent suburbs. Third, one not only approaches the city with traces of representations of that space (old movies, the news, etc.),<sup>14</sup> but also one traverses the city through the symbols and representations that one is inundated with at the street level. The city preexists the walk. The walk actualizes possibilities and obstacles, some more immobile than others. In the modern city, one may traverse the space in stylistically resistant ways, but there is little one can do to stop or reroute traffic (in other words to reconfigure the space) short of revolution. For example, the revolutionary blockades in pre-Hausmann Paris had to physically reconfigure the city's streets to create a place of power from which to act.

At this point, de Certeau's specific metaphor of social space as a city loses its usefulness. It becomes problematic in that *the city* as a conceptual space is a modernist space, a Western industrialized space, a very specifically political and economic space. Representing social space as a city falls back into Western industrial representational (and conceptual) space since any conceptualization of space is necessarily political. Likewise, the notion that resistant practices occur on the streets or emerge from the streets (i.e., declarations that "we must take back the streets") falls back into the modernist problematic as well. This observation is especially prescient when discussing not only global matters but also

distinctly non-Western ones. Describing the social space of a nonindustrialized country as a city all but establishes a telos of modernization and Westernization.

The particular arrangement of relations between these three concepts in any particular social space I wish to call *culture*. Culture is not a symbolic structure (i.e., a text) but exists in that structure's links with social spatial practices and the way that symbolic structure is articulated with the dominant conceptual scheme (e.g., Is it resistant to or resonant with that scheme? And are either or both the practiced and symbolic resistant? etc.). Culture, then, arises in part from our habits and out of social space. As Raymond Williams (1989) has written, culture is ordinary, meaning that it is both a whole way of life (our embodied habits, the living of our spaces) and a tradition (the heavier, durable, overdetermined structures of social space).

Modern social space, Lefebvre (1991) argues, is what he calls Abstract space, which

functions "objectally," as a set of things/signs and their formal relationships. . . . Formal and quantitative, it erases distinctions, as much those which derive from nature and (historical) time as those which originate in the body (age, sex, ethnicity). . . . Abstract space relates negatively to that which perceives and underpins it—namely, the historical and religio-political spheres. . . . It functions *positively* vis-à-vis its own implications: technology, applied sciences, and knowledge bound to power. (pp. 49-50)

This space appears to be similar to that bound by rationality (Marcuse) or technique (Ellul). It is a one-dimensional space that reifies everything, turning the world into standing reserves. But though this may be the dominant character of modern space (being, arguably, the dominant conceptualization of space as we have seen in Ellul, Heidegger, Marcuse, and others, if I may lump all of them together momentarily), we have to open ourselves to the possibilities of unfamiliar representational spaces,<sup>15</sup> as well as alternatives to abstract space that do not fall back into the nostalgia of Nature (as Lefebvre's [1991, p. 48] alternative, absolute space, tends to do). Abstract space, Lefebvre argues, is not final after all, but rather contains within it the seeds of a new, differential space.

Cyberspace—the social space of the new technological assemblage, "that place you are in when you are talking on the telephone" (John Perry

Barlow, quoted in Elmer-DeWitt, 1995, p. 8), on the Internet, in front of the TV, at the ATM; our electronic habitus—is a molarity. Any molarity is always the grasping of some elements over others: “A structure is defined by what escapes it” (Massumi, 1992). The question now is, what is the grain of cyberspace, of the new assemblage—realizing that there is no one cyberspace? What gets folded, pressed, and grasped together? What is stratified? What is the culture of this new social space?

Some answers could be more or less direct, and have been more or less covered over the last few chapters: Anxieties about agency that are masked by arguments about access; anxieties about identity, about the reliance of identity on the technological (credit histories, driver’s license and Social Security numbers, etc.), about the absolute power of the machine to destroy that data, wiping us clean, and about the assertion of a particular identity across the space (corporate culture, the white male hacker, the aggression of the flame war, etc.).

But others are less so.

### Notes

1. I need to note here that what I argue below follows from Deleuze and Guattari, but is influenced by other appropriations of their work (most prominently Larry Grossberg and Meaghan Morris) and is the result of my own reading not only of Deleuze and Guattari but of Grossberg and Morris as well. Whatever flaws exist in my reading are not their responsibility, but whatever insights there may be are certainly due to their help.
2. “[It] seems difficult to treat philosophy, art, and even science as mental objects,” simple assemblages of neurons in the objectified brain, since the derisory model of recognition confines these latter within the *doxa*. If the mental objects of philosophy, art, and science (that is to say, vital ideas) have a place, it will be in the deepest of the synaptic fissures, in the hiatuses, intervals, and meantimes of a nonobjectifiable brain, in a place where to go in search of them will be to create.” (Deleuze & Guattari, 1994, p. 209)
3. On the decorporealization of space see Lefebvre, 1991, 1981, and Gregory, 1994.
4. “Deleuzoguattarian” is a term from Bogue, 1989.
5. On the contradictions of Deleuze’s concepts, see Colombat, 1991.
6. The notion of a differentiating *machine* follows Larry Grossberg’s (1992) reading of Deleuze and Guattari.

7. In a similar vein, Michel Serres (1995) writes that there are no cars that are purely “contemporary”:

What things are contemporary? Consider a late-model car. It is a disparate aggregate of scientific and technical solutions dating from different periods. One can date it component by component: this part was invented at the turn of the century, another ten years ago, and Carnot’s Cycle is almost two hundred years old. Not to mention that the wheel dates back to neolithic times. The ensemble is contemporary only by assemblage, by its design, its finish, sometimes only by the slickness of the advertising surrounding it. (p. 45)

Serres extends *parastrata* to time as well, that there are formal resonances irrespective of history: “It means that Lucretius, *in his own time*, really was already thinking in terms of flux, turbulence, and chaos, and second, that *through this, he is part of our era*, which is rethinking similar problems” (p. 47, emphasis in original). Serres’s method of dealing with time is profoundly amodern in that it denies the radical historical breaks (beyond which everything is different) that are central to the modern (see Serres, 1995, esp. p. 48).

8. But at the same time, each technological artifact—each car—is unique; my 1987 champagne-brown Honda Civic DX is different from your 1987 champagne-brown Honda Civic DX, though they resonate like crazy on many levels.
9. Again, this follows Grossberg, 1992.
10. On network builders, cf., e.g., Law, 1987.
11. “Properly speaking, [contraction] forms a synthesis of time. A succession of instants does not constitute time any more than it causes it to disappear; it indicates only its constantly aborted moment of birth. Time is constituted only in the originary synthesis that operates on the repetition of instants. This synthesis contracts the successive independent instants into one another, thereby constituting the lived, or living, present. It is in this present that time is deployed. To it belong both the past and the future: the past in so far as the preceding instants are retained in the contraction; the future because its expectation is anticipated in this same contraction. The past and the future do not designate instants distinct from a supposed present instant, but rather the dimensions of the present itself in so far as it is a contraction of instants” (Deleuze, 1994, pp. 70-71).
12. The list could go on: use of a roman character set, use of vision, hands, and other functions, and so on.
13. Lefebvre (1991) takes these terms from Chomsky but does not imply that these are to be taken *linguistically* (p. 33).

14. In this way, many people who have not visited Dallas before may get a strange sense of familiarity when approaching the grassy knoll and book depository downtown, even if they do not realize that is where they are going.
15. Cf. Eric Michaels, 1994, work on Aboriginal media.

## Part Two

# Assemblage

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Great changes have taken place in the U.S. social formation since the late 1980s, and these changes continue apace. The modern technologies of nuclear systems and industrial technologies are being replaced by the postmodern technologies of communication and information. It seems as if individual human agency is expanding through these new technological networks; we are becoming a telecommunity, expanding our reach through "telepresence" and carrying out our work through Intelligent Agents. So within the modernist episteme, the modern formation has been transformed into or usurped by a postmodernist one. The modern/postmodern tension is one that runs throughout this period.

I find the idea of modern/postmodern problematic in that it ignores the new distribution of heavy industry overseas, as well as the increasingly dangerous and unstable distribution of the weapons and weapons-grade plutonium of the cold war. But in the terms that I am arguing here in this book, it ignores the continuance of earlier formations of power as well as the actual distribution of agency in contemporary social space.