1 Towards a Poetics of Cyberpunk

Brian McHale

"CYBER WHATSIS"

> [T]hat old chestnut *cyberwhatsis*, or whatever it was, he couldn't remember.
>
> (Pat Cadigan, *Synners* 87)

What is cyberpunk, anyway? The question itself is wrong-headed, presupposing as it does that cyberpunk "is" some one thing or other, that it is some kind of "object" about which demonstrably true or false statements could be made. Nevertheless, wrong-headed though it may be, the question "What is cyberpunk?" does admit of an answer—or rather several answers, all different, none of them necessarily reducible to any of the others.

No doubt cyberpunk is, as its critics within the science-fiction (SF) community insist, a barefaced marketing device of SF publishers. But, if it is anything more than that (as I believe it is), then cyberpunk SF must, first of all, be a generational and "school" phenomenon. It has its own "school" institutions—manifestoes and literary polemics, group anthologies, fan magazines, panels at SF conventions, etc.—and its forms of "school" solidarity; e.g. cyberpunks write jacket blurbs for one another's books and otherwise promote the careers and reputations of fellow members of the school.[1] There does exist (as I shall undertake to demonstrate below) a shared cyberpunk poetics, but this is to some extent a consequence of membership in the cyberpunk group rather than the other way around. That is, the initial question to be asked about cyberpunk SF is not so much "*What* is it?" as "*Who* are the cyberpunks?" As with other school phenomena, we can identify an inner circle of "hard-core" cyberpunks—including Bruce Sterling, its leading propagandist, William Gibson, John Shirley, Rudy Rucker, and Lewis Shiner—and a more fluid outer circle of writers who have at some point or to some degree affiliated themselves with the cyberpunk group, or have had such an affiliation thrust upon them by others. This outer circle might include, among others, Greg Bear, Pat Cadigan, Richard Kadrey, Marc Laidlaw, Tom Maddox, Lucius Shepard, Michael Swanwick, and Walter Jon Williams.

A CHILD'S HISTORY OF SCIENCE FICTION[2]

Second, cyberpunk is the latest in the succession of phases or "waves" constituting the modern history of the SF genre. The SF genre, Jameson ("Progress" 149) reminds us, has "a complex and interesting formal history of its own … with its own dynamic, which is not that of high culture, but which stands in a complementary and dialectical relationship to high culture or modernism as such." Malmgren ("Worlds" 30–34) has usefully suggested that an account of the genre's history in the twentieth century might be structured around the oscillation between two modes or types of science-fiction world-building, which, adapting familiar terminology of SF criticism, he calls "extrapolation" and "speculation." Extrapolative SF begins with the current state of the empirical world, in particular the current state of scientific knowledge, and proceeds, in logical and linear fashion, to construct a world which might be a future extension or consequence of the current state of affairs. Speculative world-building, by contrast, involves an imaginative leap, positing one or more disjunctions with the empirical world which cannot be linearly extrapolated from the current state of affairs. Worlds constructed by extrapolation, one might say, stand in a metonymic relation to the current empirical world, while worlds constructed by speculation stand in a metaphorical or analogical relation to it. These categories partly (but only partly) coincide with the distinction which has often been drawn in SF criticism between "hard" and "soft" SF (i.e. between SF based on the "hard" or physical sciences and SF based on the "soft" or human sciences); "hard" SF, says Malmgren, has certain "affinities" with extrapolation, "soft" SF with speculation.[3]

Naturally, these two modes of SF world-building are not mutually exclusive, either in historical periods or in individual texts. That is, extrapolation and speculation can coexist in the same text, and certainly in the same period of SF history, though in every case one of the two modes is likely to be relatively more salient or more central than the other. In other words, to label a text or period "extrapolative" or "speculative" is not to identify the presence of one mode and the corresponding absence of the other, but rather to specify the structural-functional *dominant* of the text or period (see Jakobson). Consequently, an internal history of the SF genre which utilizes these categories will be a history of the successive shifts of dominance between extrapolation and speculation.

According to one widely-accepted version, the history of modern SF commences (or recommences, if one counts H.G. Wells as its founding father) with the pulp-magazine fiction edited by Hugo Gernsback in the 1920s and 1930s. Gernsback's so-called "scientifiction" had extrapolative world-building as its dominant, and thereafter each successive phase or wave of SF has reacted against the dominant of the preceding phase, swinging toward the opposite pole of the extrapolation/speculation polarity. Thus, Gernsback's extrapolative "scientifiction" provoked, by way of

reaction, a swing to speculative "space opera" and space fantasy (K.E. Smith; Edgar Rice Burroughs), which in turn provoked a counter-reaction against speculation and back to extrapolation in the so-called "Golden Age" magazine SF of the 1940s and 1950s. The "New Wave" SF of the 1960s clearly marks a return to the speculative dominant, in reaction against the extrapolative dominant of the preceding phase. This speculative phase has prolonged itself into the 1970s and 1980s, partly through the rise, in the aftermath of Tolkien's neo-fantasy trilogy *Lord of the Rings*, of hybrid "science fantasy" writing, a new sub-genre which seems likely to secede from SF altogether (if it has not already done so (see Malmgren, "Towards").

These successive shifts of dominance do not entail any simple return to or recovery of the poetics of the phase before the last; rather, some part of the poetics of the preceding phase is preserved and integrated in the new phase, even while other parts are rejected and replaced by elements retrieved from an earlier phase. Thus, the latest wave of SF writing rejects the speculative dominant of 1960s New Wave SF, and swings back to extrapolative world-building, while at the same time retaining certain elements of New Wave poetics. "When I was starting out," the cyberpunk novelist William Gibson explains, "I simply tried to go in the opposite direction from most of the stuff I was reading" (McCaffery, *Across* 228): this might be taken as a typical (though atypically frank) expression of the relation between successive generations of SF writing in general, and between the generation of the 1980s and its predecessors in particular. This newest phase includes neo-extrapolative "hard" SF writers (e.g. Gregory Benford, David Brin) as well as, problematically, cyberpunk SF—problematically because, while the cyberpunks themselves describe their own world-building practice as extrapolative, other extrapolative SF writers tend to regard them as continuators of the New Wave, more preoccupied with style and "texture" than with extrapolation.[4]

REPERTOIRES

Finally, whatever else cyberpunk may be, it is also, as I sought to demonstrate in the preceding chapter [editor's note: see McHale, 1992, *Constructing Postmodernism*: Ch. 10, "POSTcyberMODERNpunkISM"], a convenient name for the kind of writing that springs up where the converging trajectories of SF poetics and postmodernist poetics finally cross. It arises, in other words, from the interaction and mutual interference of SF and mainstream postmodernist writing. Consequently, no attempt to describe the repertoire of cyberpunk motifs would be adequate that failed to take into account cyberpunk's relations with both the SF repertoire and the postmodernist repertoire.

From the point of view of the SF repertoire, there are few, if any, absolute novelties in cyberpunk SF. Most cyberpunk motifs have precedents in earlier SF; some, indeed (e.g. the renegade robot motif), are among the hoariest of

SF clichés. Cyberpunk's critics within the SF community have sometimes adduced this fact as counter-evidence to cyberpunk propagandists' excessive claims for the novelty and "breakthrough" character of cyberpunk. There is, nevertheless, an important sense in which cyberpunk is innovative despite the familiarity or formulaic character of its SF motifs. What is new in cyberpunk is, first of all, the conspicuousness of certain selected motifs rather than others, their foregrounding relative to other motifs from the SF repertoire; and, secondly, the co-occurrence of certain motifs in the same texts, the solidarity among these motifs, the way they mutually corroborate and reinforce each other to create a motif complex which is distinctive of the cyberpunk wave of SF, even if every one of the individual items making up the complex can be traced back to earlier SF phases. The novelty of cyberpunk, in other words, lies not in the absolute newness of any particular component or components, but in a shift of dominance or center of gravity reflected in the combination of components and their relative conspicuousness in cyberpunk texts.

Cyberpunk's relation to "elite" postmodernist poetics is rather different. In what follows I undertake to demonstrate and substantiate the overlap between the postmodernist poetics of fiction and cyberpunk poetics. It is worth noting right at the outset, however, that the shared motifs I identify typically occur at different levels of textual organization in postmodernism and cyberpunk. That is, what typically occurs as a configuration of narrative structure or a pattern of language in postmodernist fiction tends to occur as an element of the fictional world in cyberpunk. Cyberpunk, one might say, translates or trans codes postmodernist motifs from the level of form (the verbal continuum, narrative strategies) to the level of content or "world."[5] To put it differently, cyberpunk tends to "literalize" or "actualize" what in postmodernist fiction occurs as metaphor—metaphor not so much in the narrow sense of a verbal trope (though that is also a possibility), but in the extended sense in which a narrative strategy or a particular pattern of language use may be understood as a figurative reflection of an "idea" or theme. In this respect, too, cyberpunk practice is clearly a continuation or extension of SF practice generally, for SF often generates elements of its worlds by literalizing metaphors from everyday discourse or mainstream fiction and poetry (see Todorov 76–77; Delany "Shadows"; Lem).

There are three large bundles or complexes of motifs which cyberpunk SF shares with mainsteam postmodernist fiction: motifs of what might be called "worldness"; motifs of the centrifugal self; and motifs of death, both individual and collective.

COWBOYS AND SUNDOGS

> Isn't this an "interface" here? a meeting surface for two worlds, sure, but which two?
>
> (Thomas Pynchon, *Gravity's Rainbow* 668)

Both science fiction and mainstream postmodernist fiction possess repertoires of strategies and motifs designed to raise and explore ontological issues. Here is the ultimate basis for the overlap between the poetics of postmodernist fiction and SF poetics in general, including cyberpunk poetics in particular. SF, that is, like postmodernist fiction, is governed by an ontological dominant, by contrast with modernist fiction or, among the genres of "genre" fiction, detective fiction, both of which raise and explore issues of epistemology and thus are governed by an epistemological dominant. Thus, while epistemologically-oriented fiction (modernism, detective fiction) is preoccupied with questions such as: what is there to know about the world? Who knows it, and how reliably? How is knowledge transmitted, to whom, and how reliably? etc., ontologically-oriented fiction (postmodernism, SF) is preoccupied with questions such as: what is a world? How is a world constituted? Are there alternative worlds, and if so how are they constituted? How do different worlds, and different kinds of world, differ, and what happens when one passes from one world to another? etc.[6]

To explore such ontological issues, both SF and postmodernist fiction naturally use and adapt the resources common to all varieties of fiction, in particular the universal fictional resource of presentation of virtual space. If all fictional texts project virtual spaces, not many of them foreground and exploit the spatial dimension to the degree that SF and postmodernist texts do.[7] This shared poetics of space is partly to be explained by the common historical origins of both SF and postmodernist fiction in romance. In medieval romance the category of "world," normally the unrepresentable, absolute horizon of all experience and perception, is itself made an object of representation through a particular metaphorical use of enclosed spaces *within* the romance world: castles, enchanted forests, walled gardens and bowers, etc. Such symbolic enclosures, functioning as scale-models or miniature analogues of worlds, bring into view the normally invisible horizons of world, the very "worldness" of world (see Jameson's "Magical Narratives" and *The Political Unconscious* 103–50; cf. Harvey's *The Condition of Postmodernity* 240–41). Space, in other words, becomes in medieval romance an all-purpose tool for "doing" ontology—a means of exploring ontology *in* fiction, as well as (potentially at least) the ontology *of* fiction. And this is true not only of medieval romance itself, but of its "heirs" as well, including both SF and postmodernist fiction. SF in particular has developed in the course of its history as a genre an entire repertoire of "microworlds," scale-model worlds designed to bring into view the "worldness" of the category "world" itself. Ultimately derived from the castles, forests and bowers of medieval romance, these SF microworlds—domed space colonies, orbiting space-stations, subterranean cities, "cities in flight," and the like—recur throughout the genre's history. They recur yet again in cyberpunk SF, but with a new intensity of emphasis, sharpness of focus, and functional centrality.

MICROWORLDS

The typical cyberpunk microworld uses the familiar motifs of outer-space fiction as building-blocks: orbiting space-stations or platforms, domed space colonies and the like. However, if the basic construction materials are SF clichés, the treatment of these materials in the cyberpunk context is typically revisionist or parodic. Where space-stations and space-colonies of traditional SF are glamorous showcases of high technology (think of Kubrick's *2001*), those of cyberpunk SF are likely to be orbiting slums—shabby, neglected, unsuccessful, technologically outdated, as in Gibson and Sterling's "Red Star, Winter Orbit," Shiner's *Frontera* (1984), or Shirley's *Eclipse* (1985). Alternatively, for the miniature liberal-egalitarian democracies of traditional SF (think of *Star Trek*), cyberpunk substitutes off-world havens of privilege, orbiting penthouses to which the wealthy and powerful withdraw to escape the poverty and danger of the planet surface, as in Gibson's *Neuromancer* (1984) and *Count Zero* (1986), or Williams's *Hardwired* (1986).

Moreover, the cyberpunk adaptations of these familiar motifs heighten precisely the "worldness" of outer-space microworlds. This tendency is particularly conspicuous in Sterling's *Schismatrix* (1985), Swanwick's *Vacuum Flowers* (1987) and Williams's *Voice of the Whirlwind* (1987). These texts extrapolate a future in which the human race, having evacuated planet Earth (partially in Williams, totally in Sterling and Swanwick), lives dispersed throughout the solar system in artificial planets and space-colonies (on asteroids, the moons of other planets, etc.). Not only do these orbiting city-states differ from one another in the ways that nations differ in our world—in language, culture, political systems, etc.—but they also differ in much more basic, indeed ontological, ways—in light, gravity, temperature, strains of bacteria, etc. They differ, in other words, as worlds differ, and their differences heighten the world-modeling function of these enclosures.

Another cyberpunk variant brings these microworlds down out of orbit to the terrestrial surface and superimposes them on the current map of the world. In Marc Laidlaw's *Dad's Nuke* (1985) and Williams's *Hardwired*, for example, the United States of the near future has been balkanized (or, I suppose, "lebanonized"), that is, it has disintegrated into self-contained, warring enclaves sustained (in Laidlaw, less so in Williams) by disparate and competing ideologies and epistemologies. In Lucius Shepard's *Life During Wartime* (1987) and Lewis Shiner's *Deserted Cities of the Heart* (1988), it is Mexico and Central America that have disintegrated in this way; in Shirley's *Eclipse* it is Europe. These extrapolated near-futures literalize a familiar metaphor in the sociology of knowledge (see, e.g., Berger and Luckmann), that of the multiple, competing "subuniverses" or "enclaves" of meaning into which complex (post)modern societies have diversified. Here the diversification of knowledge is literal and geographical, and Berger and Luckmann's epistemological enclaves have erected barbed-wire perimeter

fences and armed themselves with the latest military hardware against their epistemological competitors.

Alternatively, microworlds appear as islands: the artificial island of Freezone in Shirley's *Eclipse* (symmetrically mirroring and balancing the orbiting space-station FirStep in the same text), or the islands of Sterling's "Green Days in Brunei" (1985) and *Islands in the Net* (1988). Some of Sterling's islands are fully integrated "in the net" of global communications and information, while other island enclaves, some of them literally islands (Grenada, Singapore, Brunei), others only figuratively so (renegade guerrilla bands, African pocket dictatorships) remain defiantly outside the net. It is these latter islands—disparate, marginalized, renegade, resisting integration into the homogenizing world-system—that most strongly foreground the "worldness" of island microworlds.

It is especially with these enclaves and island microworlds that cyberpunk SF returns to its distant historical roots in the kinds of romance worldspaces that Jameson has described. Cyberpunk also returns to its romance roots through its use of wandering adventurer-heroes as a device for foregrounding its microworlds. "Worldness" in medieval romance (and in later subliterary derivatives, such as the Western) was heightened by the narrative device of the conventional knight-errant's itinerary, which took him from microworld to microworld—from castle to enchanted forest to cave to bower to another castle, and so on. Freely crossing world-boundaries, the knight-errant thus served to expose the differences among (micro)worlds.

How conscious cyberpunk is of the adventurer-hero tradition is suggested by the nickname of Williams's hero in *Hardwired*, who smuggles contraband across the internal frontiers of what used to be the United States: he is (what else?) Cowboy. Space-traveling versions of the knight-errant or cowboy abound in cyberpunk; Swanwick's Rebel Mudlark (*Vacuum Flowers*) is one, Sterling's Abelard Lindsay (*Schismatrix*) another, Williams's Etienne Steward (*Voice of the Whirlwind*) yet another. Sterling even coins a name for them: they are "sundogs" (by analogy, I suppose, with seadogs, another adventurer-hero model), and the interplanetary spaces they traverse on their itineraries from microworld to microworld are "sundog zones."

IN THE ZONE

When Sterling calls these interplanetary spaces "sundog zones," he alludes to similar multiple-world spaces projected by postmodernist texts, in particular the "Zone" of Pynchon's *Gravity's Rainbow* and William Burroughs's "interzone." All these spaces, cyberpunk and postmodernist alike, are instances of what Michel Foucault called "heterotopia," the impossible space in which fragments of disparate discursive orders (actualized in cyberpunk as disparate microworlds) are merely juxtaposed, without any attempt to reduce them to a common order.

In its terrestrial versions, this cyberpunk Zone typically takes one of two forms. One form is that of the War Zone, the familiar spaces of our world fragmented and "reconfigured" (Pynchon, *Gravity* 520), sometimes literally, by the impact of war—whether guerrilla war, as in Shepard's *Life During Wartime* and Shiner's *Deserted Cities*, tactical nuclear war, as in Shirley's *Eclipse*, or unconventional forms of so-called "conventional" warfare, as in Williams's *Hardwired*. The model of Pynchon's Zone of postwar occupied Germany is a strong presence in some of these texts (e.g. *Eclipse*); in others, especially those involving tropical jungle warfare (*Life During Wartime*, *Deserted Cities*), the model is rather Michael Herr's Vietnam War journalism in *Dispatches* (1978), or the fictionalized version in his screenplay for Coppola's *Apocalypse Now*.

The other typical cyberpunk Zone, and the source of what is perhaps the most characteristic cyberpunk imagery, is the Urban Zone. This is, so to speak, an "imploded" Zone: instead of microworlds spaced out along a narrative itinerary, here they have been collapsed together in the heterotopian space of a future megalopolis where "fragments of a large number of possible orders glitter separately in the dimension, without law or geometry, of the *heteroclite*" (Foucault xviii). The most characteristic and most influential example of this cyberpunk Zone is the "Sprawl," the near-future cityscape of Gibson's stories ("Johnny Mnemonic," "New Rose Hotel," "Burning Chrome") and novels (*Neuromancer*, *Count Zero*, *Mona Lisa Overdrive*). Similar Urban Zones occupy the backgrounds and sometimes the foregrounds (e.g. L.A. in Richard Kadrey's *Metrophage*, 1988, and Cadigan's *Synners*, 1991) of many other cyberpunk novels. They have even been projected into outer space to become the slummy asteroid-belt "tank towns" and the "cislunar sprawl" of "orbital hongkongs" in Swanwick's *Vacuum Flowers*.

The compositional principle of the Sprawl and its cognates, terrestrial and extraterrestrial, is maximally intimate juxtaposition of maximally diverse and heterogeneous cultural materials (Japanese, Western, and Third World, high-tech and low-tech, elite and popular, mainstream "official" culture and youth or criminal subcultures, etc.). The Sprawl is an image of the carnivalized city, the city as permanent carnival. Kadrey makes this explicit when, in *Metrophage*, he introduces in the background of his narrative a literal carnival, that of the Día de los Muertos, which serves to mirror *en abyme* the carnivalesque structure of the "reconfigured" Los Angeles of his near-future world.

At the center of this imploded multiple-world space—though "center" is a rather infelicitous term for a space whose organizational principle is precisely centerlessness—one typically finds an even more compact zone of cultural heterogeneity and juxtaposition, a kind of dense node of collapsed microworlds. This zone-within-the-Zone—red-light district, ghetto or barrio, sometimes a single building—can be read as a synecdoche (*pars pro toto*) or *mise-en-abyme* of the broader Zone that surrounds it.

Examples include the multi-storey flea-market, the Hypermart, of Gibson's *Count Zero;* OmeGaity, the homosexual cruising warren on Shirley's island-city Freezone, with its "strange vibe of stratification: claustrophobia layered under agoraphobia" (Shirley, *Eclipse* 129); the Iron Barrio prison-camp of Shepard's *Life During Wartime;* and the Golden Age of Hollywood Pavilion of Kadrey's *Metrophage*, an "enormous tented structure" housing reconstructions of classic Hollywood movie sets, left over from a world's fair and now home to a floating population of vagrants and squatters.

CYBERSPACE

All the strategies of "worldness" described so far have involved juxtapositions among microworlds occupying the same ontological plane and arranged along the same horizontal axis. It is also possible, however, to foreground the "worldness" of world by juxtaposing worlds not, as in all these cases, in series, on a horizontal axis, but rather *in parallel*, on a *vertical* axis; that is, it is possible to juxtapose worlds occupying *different* ontological planes—worlds and meta-worlds, or worlds and inset worlds (worlds-within-worlds).

The characteristic cyberpunk form of inset world is "cyberspace" (Gibson's coinage), the computer-generated space mentally experienced by computer operators whose nervous systems are directly interfaced with the computer system. According to the fictitious history developed in cyberpunk novels, cyberspace evolved from the "virtual worlds" of military simulations, but its real origin (as Gibson has cheerfully admitted in an interview) is less glamorous, namely, contemporary video-arcade games and computer-graphics programs (McCaffery, *Across* 138). More generally, the cyberspace motif arises from the potent illusion, experienced (I suppose) by all computer-users, sophisticated and unsophisticated alike, of gazing into (or even moving around inside) some space lying somehow "within" or "behind" the flat screen of the computer monitor.[8] And of course, apart from its immediate experiential source in illusions of this kind, cyberspace also has a long SF pedigree, including all the many variations on the SF motif of "paraspace": parallel worlds, other "dimensions," worlds of unactualized historical possibility, etc.

Gibson's cyberspace, also called the "matrix," is a three-dimensional grid ("a 3-D chessboard, infinite and perfectly transparent" (Gibson, *Count Zero* 168)) in which concentrations of data (those stored by corporations, government agencies, the military, etc.) are represented by color-coded geometrical shapes: "the stepped scarlet pyramid of the Eastern Seaboard Fission Authority burning beyond the green cubes of Mitsubishi Bank of America, and high and very far away, the spiral arms of military systems" (Gibson, *Neuromancer* 52). The user of this system has the illusion of moving among these representations as through a landscape, but a landscape entirely mental and virtual. The matrix is a "consensual hallucination," that

is, exactly the same hallucinatory landscape is experienced by everyone who "jacks into" anyone of the system's terminals.

Apart from this second plane of shared cyberspace reality, parallel to the primary reality plane, Gibson's fictional world also incorporates a number of "private" paraspaces, limited-access worlds-within-the-world. The billionaire Virek, for instance (*Count Zero*), whose sickly body is kept alive in a vat, has had a private mental reality constructed for himself, one that simulates the city of Barcelona, while Bobby Newmark (*Mona Lisa Overdrive*) is permanently jacked into a unit that contains its own separate cyberspace world-construct ("an *approximation of everything*"(Gibson, *Mona* 128)). These private paraspaces are not, however, hermetically sealed, but may be entered not only from the primary reality plane but even, in extraordinary circumstances, from other inset worlds: Bobby Newmark, for instance, penetrates Virek's world-construct from the cyberspace matrix at the climax of *Count Zero*. It is possible, in other words, to adventure from parallel world to parallel world on the vertical axis, just as one can from microworld to microworld on the horizontal axis of the primary reality plane.

Where texts such as *Neuromancer*, Cadigan's *Mindplayers* (1987) and Laidlaw's *Dad's Nuke* construct a two-tier ontology (see Pavel) by juxtaposing a primary reality plane with an inset cyberspace world, other cyberpunk texts do so by juxtaposing the primary reality plane with a parallel realm of mythic archetypes. Examples include Shiner's *Frontera*, whose protagonist, Kane, acts out the hero "monomyth" simultaneously in the real world and the myth-world, to which he has access in dreams and hallucinations; Shiner's *Deserted Cities of the Heart*, where the myth being reenacted is the Mesoamerican one of Kukulcan/Quetzlcoatl; and Shepard's *Green Eyes* (1984), where the parallel myth-world is that of voodoo divinities. In other words, these texts literalize or actualize the kinds of mythological materials that function metaphorically in modernist texts such as *Ulysses* and *Doktor Faustus*. While Joyce's Leopold Bloom "is" Odysseus only figuratively, in a kind of extended metaphor, Shiner's Kane *really* is the Hero with a Thousand Faces on a different but parallel plane of reality.[9]

The paraspace motif, including cyberspace and its functional equivalent, the myth-world, not only serves to bring into view the "worldness" of world; it also offers opportunities for reflecting concretely on world-making itself, and on science fiction world-making in particular. For paraspace is, at least potentially, a scale-model of the fictional world itself, a fictional-world-within-the-fictional-world or *mise-en-abyme* of the text's world. The paraspace motif makes possible, in other words, metafictional reflection *by* the text on its own ontological procedures.

Cyberpunk texts often foreground this metafictional potential of paraspace. For instance, they develop an analogy between the author of the text who has written the fictional world into being, and the "author" of the

cyberspace or paraspace world. In Gibson's *Mona Lisa Overdrive*, this subsidiary "author," the real author's fictional double, is evidently the artificial intelligence Continuity, who intervenes in and manipulates the cyberspace world. Continuity is described as "writing a book … *always* writing it" (Gibson, *Mona* 42); is this "book" cyberspace, one wonders queasily, or *Mona Lisa Overdrive* itself? Similarly, in Shepard's *Green Eyes*, it is the protagonist Donnell who seems to be the "author" of paraspace, for the paraspace myth-world first manifests itself in stories (fictions-within-the-fiction) he has written. Later this myth-world will acquire independent ontological status, so that Donnell's role comes to be that of a subsidiary world-builder in his own right, uncannily doubling his own author.

SIMSTIM

> Which world is this? What is to be done in it? Which of my selves is to do it?
>
> (Dick Higgins 101)

Postmodernism's shift of focus to ontological issues and themes has radical consequences for literary models of the self. A poetics in which the category "world" is plural, unstable and problematic would seem to entail a model of the self which is correspondingly plural, unstable, and problematic. If we posit a plurality of worlds, then conceivably "my" self exists in more than one of them; if the world is onto logically unstable) self-contradictory, hypothetical or fictional, infiltrated by other realities) then so perhaps am "I." Dick Higgins's first question would seem to entail his last: if we can ask, "Which world is this?", then it follows that eventually, we must also get around to asking, "Which of my selves … ?"

Modernist perspectivism (e.g. *Ulysses*, *The Sound and the Fury*, *To the Lighthouse*, *Les Faux-monnayeurs*) multiplied points of view on the world, but without, for the most part, undermining the underlying unity of the self. Though in modernist fiction the perspectives on the world are many, and each differs from all the others, nevertheless each perspective is lodged in a subjectivity, which is itself relatively coherent, relatively centered and stable; and this is true even of those modernist texts (e.g. *A la recherche du temps perdu*, *La coscienza di Zeno*, *Die Mann ohne Eigenschaften*) in which the unity and continuity of the self is problematized. Still, perspectivism does exert considerable centrifugal pressure on the self and there are tendencies in modernism toward fragmentation and decentering. Never brought to full fruition during the modernist period, these centrifugal tendencies could not be fully realized until the emergence of a postmodernist poetics exploring and problematizing the ontologies of worlds and texts (see Thomas Docherty; Uri Margolin).

For the most part, fragmentation and dispersal of the self occur in postmodernist fiction at the levels of language, narrative structure, and the

material medium (the printed book), or between these levels rather than at the level of the fictional world. In other words, postmodernist fiction prefers to represent the disintegration of the self figuratively, through linguistic, structural, or visual metaphors, rather than literally, in the persons of characters who undergo some kind of literal disintegrative experience. There are exceptions. Pynchon and Sukenick, for instance, have both produced characters who fracture or disintegrate not at all metaphorically (psychologically), but ontologically. In *Gravity's Rainbow*, for instance, Pirate Prentice is literally a medium, a "fantasist-surrogate" possessed by alternative selves, while the novel's supposed hero, Tyrone Slothrop, undergoes disassembly and "scattering," entirely disappearing from the world by the closing episodes. Similarly, there are characters in Sukenick's texts who, before our eyes so to speak, "peel off" from other characters (Roland Sycamore in *Out*), "split" into two (Boris Ccrab in *Blown Away*), infiltrate and take possession of other characters by "a kind of psychic osmosis" (*Blown Away*), and so on.

Ontologically oriented like postmodernist fiction, science fiction has also developed a repertoire of strategies for asking, "Which world is this?", yet it has for the most part managed to avoid asking the corollary question "Which of my selves?" It has, in other words, appeared to evade the consequences of its ontological pluralism and experimentalism for its model of the self. Or rather, SF has tended to neutralize the issue of the (re)presentation of self by keeping characterization generally "thin," "shallow," and impoverished, strictly subordinated to the foreground category of "world." In this respect we might even say, paradoxically, that traditional SF, otherwise so "pre-modernist" in its orientation, has always been postmodernist. "The disappearance of character (in the traditional sense) from contemporary ('postmodern') fiction," writes Christine Brooke-Rose (102), "is one of the ways in which SF and the more 'serious,' experimental fiction have come close together"; character, newly absent from "serious" fiction, has always been absent from SF!

Cyberpunk practice, here as elsewhere, is to actualize or literalize what in postmodernist poetics normally appears as a metaphor at the level of language, structure, or the material medium. Where postmodernism has figurative representations of disintegration, cyberpunk texts typically project fictional worlds which include (fictional) objects and (fictional) phenomena embodying and illustrating the problematics of selfhood: human-machine symbiosis, artificial intelligences, biologically-engineered alter egos, and so on.

Since cyberpunk handles the centrifugal self at the level of fictional world rather than, as postmodernist fiction prefers to do, at one or more of the formal levels of the text, its motifs of dispersion and decentering fall naturally into categories based on the types of fictional objects and phenomena represented. Here we can turn to Sterling's fiction for a convenient taxonomy. In a series of five stories published between 1982 and 1984 (and now reprinted in *Crystal Express*, 1989), culminating in his 1985 novel

Schismatrix, Sterling projects a future history in which humankind divides into two "posthuman" species in competition with one another, each species employing a different range of technologies to enhance and transform itself so as to improve its own chances for success. The "Mechanists," or "Mechs," use electronic and biomechanical means to augment themselves: prostheses to enhance the body, but with the side-effect of violating its integrity; brain–computer interfacing to extend the mind, but with the side-effect of attenuating and dispersing it. Their rivals, the "Shapers," use bio-engineering techniques—cloning, genetic engineering—to achieve the same ends, and with similar side-effects: who am "I" if I am a member of a "congenetic clan" of identical cloned individuals? These two technological options—the Mech option and the Shaper option[10]—define alternative ranges of representational motifs of the centrifugal self. We might call the first set, corresponding to the Mech option, cyberpunk proper, and the second set, corresponding to the Shaper option, "biopunk."

RIDING THE EYE-FACE

The traditional SF iconography of the humanoid robot, as developed by Čapek, Binder, Asimov and others, is relatively rare in cyberpunk; only Rudy Rucker (*Software*, 1982; *Wetware*, 1988) has exploited it in any very ambitious way. More typical of cyberpunk are its artificial intelligences (AIs), software surrogate humans, i.e. programs, rather than the hardware robots (or "wetware" androids) of traditional SF. Examples include Cadigan's AI "character" Artie Fish (*Synners*) and Gibson's Wintermute and Neuromancer, AIs who merge at the end of *Neuromancer* but by the time of its sequel, *Count Zero*, have already broken up into multiple software "selves." All of these variants on the robot motif serve to raise the classic SF question, who (or what) is human? At what point does a machine cease being a "mere" machine and begin to count as a human being?

This same question is also raised, but in inverted form, by the cyberpunk motif of prosthesis: at what point does a human being cease to be a human being and begin to count as a machine? The Mechanists of Sterling's Shaper/Mechanist cycle present an entire range of prosthetic possibilities, from biomechanical arms and legs, through remote-control "waldos" that enable human beings to extend their presence into unlivably hostile environments (deep space, ocean abysses), to "wireheads" who, abandoning their organic bodies entirely, survive as software ghosts in electronic machines. Less total prostheses are recurrent motifs in Gibson, Kadrey (*Metrophage*) and Williams (*Hardwired*, *Voice of the Whirlwind*), especially artificial eyes and surgically-implanted weapons, and even, in Kadrey, prosthetic genitalia!

Prosthetic augmentation is possible for mental capacities as well as for the body's physical capacities. There are minimal forms of this mental-augmentation motif, in which units ("microsofts," "augs") introduced

permanently or temporarily into the nervous system supply specialized knowledge of preprogrammed technical skills when needed. Maximally, as in Swanwick's *Vacuum Flowers* and Cadigan's *Mindplayers*, mental augmentation takes the form of temporary programming of individuals with any of a whole range of useful or desirable personality constructs ("personas"), either for the sake of the specialized skills which these latter possess (doctor, police, skilled worker, weapons operator), or simply for reasons of entertainment and fashion.

At some hard-to-define point prosthetic augmentation shades off into a complete human–machine symbiosis or fusion, and the borders of the self blur and erode. The image of a human being coupled with a machine—"jacked-in," "riding the eye-face" (i.e. the "I-face," or human–machine interface)—recurs in many variations throughout cyberpunk; it is, indeed, the most characteristic piece of cyberpunk iconography. In these postures of fusion, the human partner in the symbiosis may experience an exhilarating expansion of self, as Williams's protagonist Cowboy does when he plugs into his armored vehicle, or, alternatively, an identity-threatening dilution or attenuation, as does, for instance, Williams's part-human, part-prosthetic character, Reno, or the "wirehead" Ryumin in *Schismatrix*. In extreme cases, the human self may be entirely absorbed into the machine. Williams's Reno, for instance, who begins as part prosthetic, ends by being a literally centrifugal self, diffused throughout the worldwide information network; similarly, Cadigan's Visual Mark (*Synners*), interfaced with the electronic network through skull-sockets, finally abandons his ravaged body ("the meat," as he contemptuously calls it) and "spreads" into the system. Rucker's Cobb Anderson persists as disembodied, taped "software" capable of being booted up in a variety of "hardware" vehicles, custom-made bodies as well as machines. Both in Rucker's two cyberpunk novels and in Swanwick's *Vacuum Flowers*, renegade cybernetic systems aspire to absorb the entire human race into a collective group-mind incorporating human and machine intelligences alike—the ultimate form of human–machine symbiosis.

ZOMBIES

The "bio-punk" sub-variety of cyberpunk SF makes available an entirely different, though complementary, range of motifs of the centrifugal self. Where machine-oriented cyberpunk produces electronic and mechanical surrogates of human beings (robots, AIs), the bio-punk variety "grows" new human individuals in vats, or clones identical multiples of the "same" individual, literally pluralizing the self. Where the machine-oriented variety augments and extends human capacities through mechanical means (prostheses, "waldos"), bio-punk accomplishes the same thing through bio-techniques, engineering new, reconfigured human types: "angels" (*Schismatrix*, *Wetware*), or mermaids and mermen (Shiner's "Till Human Voices Wake Us").

Finally, where the machine-oriented variety threatens the individual human self with diffusion throughout an electronic network, bio-punk threatens bodily fusion with other individuals (the effect of the drug "merge" in *Wetware*) and, ultimately, physical diffusion and loss of differentiation (the woman grotesquely reconfigured as a wall of undifferentiated tissue, the "Wallmother," in *Schismatrix*, the planet-wide biomass in Greg Bear's *Blood Music*).

It is not hard to see that these bio-punk motifs revise, update and rationalize classic Gothic-horror motifs of bodily invasion and disruption. This is especially the case with the bio-punk variations on the classic B-movie Gothic-horror motif of the zombie. The traditional zombie, of course, is a corpse reanimated by powerful voodoo magic to do the magician's will. In its various bio-punk adaptations, the zombie is rarely a corpse, more often a living human being "possessed" by some alien, or under the irresistible control of some other human being. The technologies of possession and control vary.

One variant, for instance, extrapolates from the familiar capacity of present-day drugs to induce in the drug-user temporary personality changes of a regular and to some extent predictable kind, changes in effect "coded" in the chemical structure of the drug. These extrapolated "designer drugs" of the future temporarily efface the "real" self and induce, for instance, a prostitute-self (Gibson's "meat puppets"), or a soldier-self (Shepard's "samurai," the name both of the drug and the personality it induces; Williams's "hardfire"). In one sophisticated version, found in Sterling's *Islands in the Net*, the capacity for transformation into an assassin personality is chemically preprogrammed into the individual, requiring only an enzyme trigger to activate it: merely eating a carton of yoghurt turns a personable Rastafarian into a "killing machine." Clearly, this military use of drugs to induce a soldier personality is functionally equivalent to the motif of human–machine symbiosis in which the pilot directly interfaces with his weapons system, as in Swanwick and Gibson's "Dogfight," Williams's *Hardwired*, and many other cyberpunk texts.

A second bio-punk variant on the zombie motif extrapolates from a classic paranoid theme, what Pynchon (*Gravity* 542) calls "the old Radio-Control-Implanted-In-the-Head-At-Birth problem." In other words, this variant involves biotechnological devices, such as surgically-implanted radio receivers, by means of which the individual self is subjected to some irresistible remote control by others. Shiner's hero Kane, in *Frontera*, for instance, is subjected to just this sort of biotechnological control, while the "spook" (i.e. secret agent) of Sterling's story by that name (1983) has been transformed into a human weapon, a "psychopath in harness" (Sterling, "Green" 177), by the introduction of a "Veil" over his cerebral cortex that, disrupting his personality, leaves him vulnerable to manipulation by his masters and handlers. Shepard (*Life During Wartime*) even has an entire radio-controlled zombie army. Rucker, in *Wetware*, elaborates a range of

horrible baroque variations on this control motif, including a "zombie box" which, affixed to the spine, turns a human being into a remote-controlled zombie; a miniaturized "robot rat" which replaces the right half of the human brain, transforming a human being into a puppet-like "meatie"; and a robot "Happy Cloak" which, draped around a vatgrown, mindless cloned body, is capable of animating it and inducing in it a semblance of sentience. Here, obviously, the distinction between machine-oriented cyberpunk motifs and bio-punk motifs has become a purely notional one, and biotechnological control devices such as those found in *Wetware* shade imperceptibly into the range of techniques for superimposing personalities which we have already mentioned in connection with *Vacuum Flowers* and *Mindplayers*.[11]

Finally, closest of all in some ways to the traditional zombie of horror fiction and movies, is what might be called the motif of the cellular-level self. In *Green Eyes*, Lucius Shepard's self-conscious revision of the zombie myth, a particular strain of bacteria introduced into the brain of a fresh corpse generates there a short-lived ersatz personality (a "Bacterially Induced Artificial Personality"). Under these bizarre circumstances, the self is literally plural and decentered, literally "a disease in a borrowed brain" (Shepard, *Green* 89).[12] The ultimate elaboration of this variant of the centrifugal self is to be found in Greg Bear's *Blood Music* (1985), in which the cells of the human body acquire their own collective intelligence, like that of an ant hill, wholly independent of the intelligence of their human "host." Seizing control of their "environment"—in the first instance, the bodies of their hosts, ultimately the entire planet—and reshaping it to their needs, they transform Earth into a vast, constantly metamorphosing biomass, possessing a single collective selfhood. Simultaneously the one and the many, centripetal and centrifugal, Bear's cellular-level intelligence mirrors the world-spanning symbiotic human–machine intelligences of Rucker and Swanwick.[13]

SIMSTIM

The theme of the centrifugal self, and the representational motifs through which it is manifested in cyberpunk SF, are essentially incompatible with the perspectivist narrative strategies of modernist fiction. Such modernist strategies (multiple limited points of view, "parallax" of perspectives, etc.) rest, as I have already suggested, on the assumption of relatively centered, relatively stable subjectivities. Recognizing this, postmodernist writers have either sought to "background" these strategies, relegating them to a subordinate and ancillary role, or have, like Pynchon in *Gravity's Rainbow*, deployed them in ways that undermine the modernist assumptions upon which they rest, in effect parodying modernist perspectivism. But Pynchon's is a difficult precedent to emulate, and cyberpunk writers have all too often ended up falling back on perspectivist structural clichés inherited from modernist poetics (either directly, or indirectly by way of SF's own modernist generation, the so-called "New Wave" SF of the 1960s).

This is true, for instance, of Shiner's *Frontera*, Shirley's *Eclipse*, Gibson's *Count Zero* and *Mona Lisa Overdrive*, Cadigan's *Synners*, and other cyberpunk novels composed on the modernist model of multiple, shifting points of view.

But the modernist assumptions underlying perspectivism can be countered, and in ways that are distinctively cyberpunk rather than weak imitations of Pynchon's postmodernism. How this can be achieved is best demonstrated by Gibson's *Neuromancer*.[14] Gibson's world includes an extrapolated communications and entertainment medium called "simulated stimulus," or "simstim," involving not only audio and visual sensory channels, as television presently does, but the entire range of senses, the full human sensorium. As an entertainment medium, Gibson's simstim is a cross between the "feelies" of Huxley's *Brave New World* and American commercial television's egregious *Lifestyles of the Rich and Famous*: simstim stars travel, interview celebrities and enjoy the good life while wearing equipment that records the full range of their sensory experience for broadcast (appropriately edited, of course) to consumers who re-experience vicariously through simstim receivers at home what the stars have directly experienced in real life. Typical SF extrapolated technology, in other words—but with interesting implications for literary perspectivism.

Twice in the course of *Neuromancer*—once when she breaks into the Sense/Net corporate headquarters, and again during her raid on the TessierAshpool refuge of Villa Staylight—Molly, the female ninja, wears a simstim broadcast rig, enabling her partner Case to accompany her on the raid vicariously, as it were. Using simstim technology, Case can occupy Molly's point of view at will, literally at the flip of a switch. The action in these episodes unfolds simultaneously on two "planes," three if one counts cyberspace, for Case shifts back and forth among his own point of view on the primary reality plane, Molly's point of view, and the secondary, cyberspace reality plane. The effect is that of "split-screen" cinema or television—or indeed, that of multiple-point-of-view fiction.[15]

This is, in one sense, a purely formal solution ingeniously motivated by a representational motif at the level of the fictional world. The text of *Neuromancer* is consistently focalized through Case, but in these episodes Case is not at the center of the action, or rather he does not occupy its only center; the action involving Molly is at least as important and engaging. The simstim motif allows Gibson to introduce Molly's experience without violating the basic point of view convention of the text.

Ingenious though it may be, this is not, however, only a characteristically cyberpunk solution to a formal problem. It is also a subversive gesture, implicitly undermining the model of the centered, centripetal self upon which modernist perspectivism rests. For with the flip of a switch Case is able to experience another's body, "other flesh," *from within*. He experiences another's physical pain when he shifts into Molly's sensorium a moment after she has had her leg broken (Gibson, *Neuromancer* 64).

He even has the opportunity to see himself from another point of view, literally *through another's eyes* (or eye, in fact):

> [He] found himself staring down, through Molly's one good eye, at a white-faced, wasted figure, afloat in a loose fetal crouch, a cyberspace deck between its thighs, a band of silver [elec]trodes above closed, shadowed eyes. The man's cheeks were hollowed with a day's growth of dark beard, his face slick with sweat.
>
> He was looking at himself.
>
> (Gibson, *Neuromancer* 256)

And of course finally, and perhaps most radically of all, when Case flips the switch that displaces him into Molly's point of view, he literally *changes gender:* he inhabits, if only temporarily, a woman's body. "So now you get to find out just how tight those jeans really are, huh?" wisecracks the Finn after he finishes explaining the simstim hook-up to Case (Gibson, *Neuromancer* 53), and this witty, subversive literalization of male clichés of sexual conquest ("I wouldn't mind getting into *her* pants!") suggests just how disorienting this motif can be, at least potentially. As a vehicle for imagining what it would be like to *be* a centrifugal self—to be in two places at once, to occupy two different points of view and two different bodies simultaneously, to change genders at the flip of a switch—the characteristic cyberpunk motif of simstim gives fresh, concrete, and radical meaning to Dick Higgins's question, "Which of my selves is to do it?"

THE FINAL FRONTIER

> His whole psychology, his point of orientation, is to dabble with death and yet somehow surmount it.
>
> (Philip K. Dick)

The ultimate ontological boundary, the one that no one can help but cross, is of course the boundary between life and death, between being and not-being. It is only to be expected, then, that an ontologically-oriented poetics such as that of postmodernist fiction should be preoccupied with death. Perhaps, though, it would be more accurate to put this the other way around, and say rather that the ontologically-oriented poetics of postmodernism is the latest, renewed manifestation of our culture's protracted struggle to represent, and thus symbolically to master, death. Either way, postmodernist fiction might somewhat reductively be characterized as one long, resourceful, highly diversified, obsessive meditation on the intolerable fact of personal extinction—your death, my death, our collective death (see McHale, *Postmodernist Fiction* 227–35).

Pynchon (1984: 5) has remarked that in science fiction "mortality is … seldom an issue," and that this mark of the genre's immaturity helps to

explain its appeal for immature readers. This is unfair; there are a number of SF writers (Philip K. Dick and Thomas Disch, among others) who have been as seriously preoccupied with mortality as any "mainstream" writer, and who have used SF conventions and formulas to explore death in ways not open to writers outside the SF genre. Nevertheless, it could be argued that no generation or group of SF writers has made the exploration of death its special province until the emergence of the cyberpunk "wave" in the 1980s.

There is one important exception to this generalization, and this has to do with a particular variant of the theme of death which has been a special province of SF writing in general since 1945 (and in fact before), namely (Sterling, "Slipstream" 79–80) the theme of nuclear holocaust. If late-twentieth-century literature in general, including postmodernist fiction, has turned with renewed attention to the perennial human preoccupation with death, no doubt this is in part because for the first time in history human beings feel threatened with "double" death: inevitable personal extinction, as always, but also the probable global self-destruction of the race and its posterity through nuclear war (or, alternatively, some ecological disaster). To SF writing in particular has fallen the task of feeding our imaginations with images and scenarios of our impending global extinction.[16] This task has been inherited in due course by the cyberpunk generation of SF writers, who have stamped their own distinctive mark and emphases on the nuclear-war theme.

DAD'S NUKE

A distinguishing mark of cyberpunk SF, writes Bruce Sterling, is its "boredom with Apocalypse" (in Gibson, *Burning* xi; Sterling, "Get"), which does not mean that cyberpunk disregards the nuclear war theme but rather that, like its SF and postmodernist precursors, it seeks ways of renewing and de-familiarizing it.

Thus, for instance, John Shirley prefaces his *Eclipse* (1985) with an alarming and enigmatic "note from the author":

> This is not a post-holocaust novel.
> Nor is this a novel about nuclear war.
> It may well be that this is a *pre*-holocaust novel.

Distancing himself in this way from familiar SF nuclear war motifs (those of the "post-holocaust novel"), Shirley prepares us for his revisionist treatment of nuclear war, for what follows is a representation of the nuclear apocalypse as a long drawn-out agony, a tactical nuclear war of attrition in Europe. In other words, Shirley challenges the image of apocalypse as a punctual, transformative, irreversible event, substituting for it an image of "slow-motion" apocalypse, an endlessly protracted "pre-holocaust" from which the world never emerges into a transformed, post-holocaust future.

Bruce Sterling's *Islands in the Net* (1988) de-familiarizes the nuclear threat in a particularly powerful and subtle way. Projecting a near-future world from which nuclear weapons have supposedly been abolished, Sterling, has his heroine Laura, the quintessentially normal citizen of this world, uncover a cabal of renegades armed with atomic weapons and intent on nuclear blackmail. Before our eyes, as it were, her nuclear-free world is shockingly transformed into our own brink-of-apocalypse world. The effect is that of a double de-familiarization: Laura's nuclear-free world, alien to us but familiar to her, is abruptly transformed into a state of affairs utterly alien to her but only too familiar to us, yet, since it is through Laura's eyes and from her alien perspective that we view this familiar state of affairs, it jolts us with a shock of de-familiarized recognition.

Another powerful de-familiarizing strategy of cyberpunk nuclear war fiction is what might be called the motif of "backyard apocalypse." The nuclear threat is literally reduced to backyard dimensions in Marc Laidlaw's satirical *Dad's Nuke* (1985), where suburban neighbors in an embattled Neighborhood enclave compete over who possesses the most advanced family arsenal: when the neighbor across the street acquires his own backyard tactical nuclear missile system, Dad responds by installing a miniature nuclear reactor in the garage! Sterling exploits a version of this same motif in *Schismatrix* (1985), where he de-familiarizes nuclear war by reducing its dimensions and making it a universally available option. In a future in which "world" has been reduced to the dimensions of orbiting "microworlds," the threat of annihilation becomes correspondingly small-scale: every orbital microworld is vulnerable to instant micro-apocalypse through the simple puncturing of its airtight outer shell. Furthermore, anyone, even a crew of pirates, can possess technology sufficient to destroy such a world:

> *Worlds could burst*. The walls held life itself, and outside those locks and bulkheads loomed utterly pitiless darkness, the lethal nothingness of naked space … There was no true safety. There had never been any. There were a hundred ways to kill a world: fire, explosion, poison, sabotage … The power of destruction was in the hands of anyone and everyone. Anyone and everyone shared the burden of responsibility. The specter of destruction had shaped the moral paradigm of every world and every ideology.
>
> (Sterling, *Schismatrix* 79–80)

Scaling it down to microworld proportions in this way restores to the motif of nuclear apocalypse its power to shock and haunt: Sterling's microworlds are transparently scale-models of our world, his microapocalypses displaced versions of the collective death we face.

Certain critics (e.g. Sontag 223–25; Wagar's *Terminal Visions* 70) have suggested that the literary representation of nuclear war is itself a displacement, that, in fact, every image of collective death is only a kind of metaphor

for personal death. Perhaps so; in any case, it is striking that in cyberpunk SF motifs of apocalypse and motifs of personal extinction co-occur, mutually corroborating and reinforcing each other. If anything, though, it is at the level of personal extinction, rather than that of collective disaster, that the cyberpunk meditation on death is most innovative, most resourceful, and most persistent. "The spectre haunting all c[yber]-p[unk]," as McCaffery ("Introduction" 15) has observed, is *the* Spectre, the spectre of death.

EXCLUDED MIDDLES

Life and death form a binary opposition, of course. As Pynchon reminds us in *Vineland* (1990), returning to a metaphor from his earlier *The Crying of Lot 49* (1966), ours is "a world based on the one and zero of life and death" (72). Between life and death there is no third option, no middle state; the law of the excluded middle applies. But, as we know from *The Crying of Lot 49*, excluded middles are "bad shit, to be avoided" (Pynchon 136), so in *Vineland* Pynchon tries to imagine a middle state of "mediated death" (218) occupied by beings called Thanatoids who, because of some "karmic imbalance" (173), are not permitted fully to die but must linger on in an ambiguous condition "like death, only different" (170).[17] Pynchon's is one version of the postmodernist modeling of the ontological frontier between life and death. Other, parallel versions are to be found in SF, for instance, the "half-life" state upon which Dick's *Ubik* (1969) is premised, and the many other SF variations on the theme of "suspended animation."

Fusing the SF and postmodernist strategies for modeling death, cyberpunk, too, seeks to imagine some middle state beyond or outside biological life yet not a state of non-being, not death itself. Here, as in the case of other cyberpunk motifs, the range of motifs for exploring this middle or half-life state divides along the lines laid down in Sterling's future history of the "posthuman" race: on one side, the Mechanist options, or cyberpunk proper, that is, electronic means of "resurrection" and persistence beyond death; on the other side, the Shaper or "bio-punk" options, that is, bio-engineered means of "posthumous" survival.

We might take as the paradigm of cyberpunk motifs of death and machine-mediated resurrection a cinematic rather than literary example: the death of the policeman Murphy and his "resurrection" as the hybrid RoboCop in Paul Verhoeven's film of that name (1987). In this extraordinary sequence, Murphy's death on the operating table is represented from his subjective point of view. Emergency procedures fail to save him, the doctors declare him dead, the screen goes black; then, after a moment of darkness, the subjective "camera-eye" perspective returns, this time framed as in a camera viewfinder, and with LED numbers flashing in one corner of the screen: Murphy has been "revived" as RoboCop, part human being, part machine. This same interior perspective on the experience of dying and

being posthumously "booted up" in a machine, so graphically represented in the *RoboCop* sequence, is persistently explored by Rudy Rucker in *Software* and its sequel *Wetware*. Throughout Rucker's texts, intelligences both human and machine face death and experience the disorienting transition to a new mechanical or biological body and the limbo state between existing in one body and existing in another. This is, in a sense, the focus or dominant of Rucker's poetics, and he is relentless in his experimentation with means of representing the subjective experience of death and resurrection.

If Rucker seems particularly obsessive in his exploration of this theme, his preoccupation with death is by no means unique in cyberpunk writing. For instance, Cadigan (in *Synners*) has one character who dies and revives not once but twice—once when he leaves his body to enter the electronic network, a second time *within* the network—and another character, literally a death addict, who wills himself to die over and over, having acquired implants that allow him to shut down his metabolism temporarily (to "flatline") and then restart it again to return to life. Plural deaths is also a leitmotif of Swanwick's *Vacuum Flowers*. His heroine Rebel Mudlark survives her first death thanks to her personality having been taped, and "dies" a second time when that taped personality is superimposed over another personality—or was it the other who died? The former personality (called Eucrasia) has not, in any case, been wholly obliterated but persists "under" the Rebel-personality as a kind of "ghost" self, "haunting" Rebel from within. Similar variations on the motif of the "ghost" self and "haunting" from within recur throughout Cadigan's *Mindplayers*, where residues of the personalities of the dead persist within the minds of the living, thanks to mind-to-mind contact mediated by machines.

In fact, "ghosts" of various kinds, both in and out of machines, abound in cyberpunk. There are, for instance, the "wireheads" of Sterling's *Schismatrix*, Williams's *Hardwired*, and Cadigan's *Synners*, human selves persisting outside their natural bodies as configurations of information in computer and communication networks; and the "personality constructs" of Gibson's trilogy, ROM units preserving the selves of deceased characters. In both these variants, the dead manifest themselves to the living as uncanny posthumous voices like those of certain postmodernist texts (e.g. Flann O'Brien's *The Third Policeman*, 1940/1967; Russell Hoban's *Pilgermann*, 1983; Thomas Disch's *The Businessman*, 1984); this effect is exploited particularly powerfully by Williams in *Hardwired*. Gibson actually calls certain beings in his *Mona Lisa Overdrive* "ghosts." These, however, are not posthumous selves but constructs, computer-simulated selves who have never existed as biological organisms in the first place, but spring full-grown from artificial-intelligence programs—ghosts *from* the machine. Another version of the ghost from the machine appears in Swanwick's *Vacuum Flowers*, in the form of "interactive ALIs," or Artificial Limited Intelligences, short-lived computer simulations of human beings. In one of its formats, the ALI is agonizingly aware of its brief life-span and imminent death; in another,

however, its memories are recorded and made available to a successor ALI, ensuring "a kind of serial immortality" (Swanwick, *Vacuum* 242).

At the end of his trilogy, in the closing pages of *Mona Lisa Overdrive*, Gibson assembles representatives of all his posthumous or out-of-body types on the cyberspace plane: a computer-simulated "ghost," a posthumous ROM personality construct, three human beings who have "died into" the cyberspace matrix. We had already, as early as the end of *Neuromancer*, had intimations of the possibility of posthumous survival in cyberspace, but here the association is confirmed: cyberspace is the machine-mediated version of the World to Come, and in this function bears a certain resemblance to some of the postmodernist variations on the World-to-Come top as (e.g. Christine Brooke-Rose's *Such*, 1966; Alasdair Gray's *Lanark*, 1981; and especially the double-agents' Hell of *Gravity's Rainbow* (Pynchon, *Gravity* 537–48)). "There's dying, then there's dying," as one of Gibson's characters somewhat unhelpfully explains (Gibson, *Mona* 252); there's dying the death of the organic body, then there's dying into the half-life of cyberspace.

The "bio-punk" versions of the death and half-life motif do not figure so conspicuously in cyberpunk writing as do the machine-mediated versions. Nevertheless, it is striking that several of the essentially machine-oriented treatments of this theme have a strong body-oriented component, a strain or undercurrent of Gothic-horror imagery of the disrupted, exploded, or dismembered body. This is the case, for instance, with Cadigan's *Mindplayers*, where, in one episode, the heroine must make contact with the mind of a deceased poetess whose brain has been extracted and preserved in "stay-juice"—a typical Gothic-horror image. It is also true of Kadrey's *Metrophage*, where the crime-boss Conover maintains, in an off-limits precinct of his house, a grisly "farm" of multiple clones of his own body, alter egos from whom he "harvests" transplant organs in order to keep himself alive: a case of "suicide and murder all rolled into one package" (215). Rucker's two cyberpunk novels, too, abound in Gothic-horror imagery of dismemberment, cannibalism, necrophilia, and so on; *Wetware* in particular alludes explicitly, and appositely, to Edgar Allan Poe.

Specifically bio-punk equivalents of the various machine-oriented motifs include cloning, which serves the same function that booting up a software self in a new body does in the machine-mediated variants: it ensures "serial immortality." Thus Steward, at the beginning of Williams's *Voice of the Whirlwind*, is already a "Beta," i.e., the clone of his dead "Alpha" self; later he will die and "return" yet again as his own "Gamma," the clone of his cloned self! Similarly, a character who dies in the first pages of *Schismatrix* "returns" near its close, many decades later, as a cloned *Doppelgänger* of herself. Sterling also exploits the familiar SF motifs of suspended animation and extreme longevity, especially the latter. In the course of *Schismatrix*, only one natural death is recorded; otherwise, characters live on and on, either dying by violence or, in extreme old age, "fading" into an ambiguous half-life state.

The bio-punk equivalent of "wirehead" survival, i.e., posthumous existence as a configuration of information in a cybernetic system, occurs in Bear's *Blood Music*. Here human selves are encoded as information at the level of the component cells of their own bodies; thus, when the body is dissolved and its component cells dispersed, the original self can nevertheless be posthumously reconstituted from the information encoded at the cellular level. This, eerily, is what happens late in *Blood Music* to an entire family who are physically dissolved into undifferentiated tissue and then reconstituted as "themselves," returning to "haunt" (benignly) the surviving family member.

If Bear thus gives a distinctively bio-punk twist to the ghost motif, Shepard does the same with the zombie motif. In his *Green Eyes*, posthumous life is induced in corpses through the introduction of a strain of bacteria. The life-span of these "Bacterially Induced Artificial Personalities" ranges from a norm of a few minutes or hours, to several months in extraordinary cases, so-called "slow-burners." Shepard, especially in the early parts of the novel, explores the subjective experience of posthumous life in "slow-burners": their struggles to gain control of their new bodies, their growing awareness of the imminence and inevitability of their own second deaths. He gives us, in other words, the bio-punk version of the death and half-life of Verhoeven's RoboCop.

In its preoccupation with the representation of death, both in its machine-oriented and its bio-punk forms, cyberpunk shows to what degree it has converged with mainstream postmodernist fiction, and how far it has outstripped all the earlier "waves" of science fiction, where the representation of death, even in the boldest and most sophisticated New Wave examples (e.g. Dick's *Ubik*, Disch's *On Wings of Song*), seems somewhat primitive and flatfooted by comparison. The cyberpunk writers (and film-makers) demonstrate that conventional "old-wave" science fiction of the *Star Trek* type has it all wrong: death, not space, is the final frontier of the imagination, beyond which only the most innovative adventurers boldly go.

ACKNOWLEDGEMENTS

Reprinted from *Constructing Postmodernism*, Brian McHale (Routledge 1992) © by kind permission of the author and Taylor & Francis Books UK.

NOTES

1 On cyberpunk "school" institutions, see Bruce Sterling's introductions to *Mirrorshades* and Gibson's *Burning Chrome*; and McCaffery's interviews with Gibson and Sterling in *Across the Wounded Galaxies* 211–32.
2 The joke is Dick Higgins's; see his "A Child's History of Fluxus."
3 Malmgren's proposal of alternating phases of extrapolative and speculative dominance in the history of twentieth-century SF seems to echo David Lodge's (1977) account of alternating phases of metaphorical and metonymic dominance in the history of "mainstream" fiction in our century. But if the rhythm of

historical change in SF parallels that of mainstream fiction, it does so only in principle. For the pendulum swings in the history of SF are not synchronized with those of mainstream fiction: SF does not shift from an extrapolative to a speculative dominant when mainstream fiction swings from its metonymic to its metaphorical pole, or from speculation back to extrapolation when mainstream fiction swings from metaphor to metonymy. Nor, for that matter, is SF history simply mainstream fiction's inverse, speculative when the latter is metonymic, extrapolative when it is metaphoric. Out of synch with each other, the two cycles do interact, but in a more complex rhythm of influence, counter-influence, and feedback (see above, "POSTcyberMODERNpunkISM").

4 For cyberpunk claims to extrapolation, again see Sterling's introductions to Sterling's *Mirrorshades* and to Gibson's *Burning Chrome*). For expressions of skepticism from "hard" SF writers, see Benford's and Brin's contributions to McCaffery (1988b: 18–27). It is perhaps paradoxical that one of Gibson's earliest stories, "The Gernsback Continuum" (reprinted in both Sterling's *Mirrorshades* and Gibson's *Burning Chrome*), involves a parody and explicit critique of Gernsback-style extrapolative "scientifiction." On the one hand, this might be read as an unconcealed manifestation of "anxiety of influence," Gibson's attempt to get the SF "Great Tradition" off his back. On the other hand, it aptly demonstrates the principle of no simple "return" to an earlier phase; rather, each return, e.g. of 1930s-style extrapolation in the 1980s, is inevitably a return with a difference.

5 Underlying my rather casual use of "levels" here is Harshav's (1979) three-dimensional model of the text.

6 See Calinescu's "From the One to Many" and McHale's *Postmodernist Fiction*; and see above, "The (post)modernism of *The Name of the Rose*."

7 On space in postmodernist fiction, see Malmgren; on the "spatial turn" of postmodernism in general, see Harvey, Soja, and Jameson's *Postmodernism* (16, 154–57, 364–76 and *passim*).

8 Computer technology is rapidly outstripping science fiction, for actual, functioning versions of computer-simulated "virtual reality" closely resembling Gibson's fictional "cyberspace" are currently under development (see, e.g. Stewart).

9 Literalization of modernist-style mythic archetypes is also a motif of postmodernist writing; see, e.g., Donald Barthelme's *Snow White* (1967), *The Dead Father* (1974), and *The King* (1990), Robert Coover's *Pricksongs and Descants* (1969), Italo Calvino's *The Castle of Crossed Destinies* (1969/1973), Gunter Grass's *The Flounder* (1977), Angela Carter's *The Bloody Chamber* (1979), John Fowles's *Mantissa* (1982), and especially the fiction of John Barth, including *Giles Goat-Boy* (1966), *Lost in the Funhouse* (1968), *Chimera* (1972), and *The Tidewater Tales* (1987). Barth puts the case for literalizing mythic archetypes in quite explicit terms: "to write realistic fictions which point always to mythic archetypes is in my opinion to take the wrong end of the mythopoeic stick, however meritorious such fiction may be in other respects. Better to address the archetypes directly" (Barth 1973: 207–8).

10 See Maddox in McCaffery's *Storming the Reality Studio*; and Bukatman's "Postcards." Swanwick, in *Vacuum Flowers,* offers a parallel future history and an alternative pair of categories; in his version, the division is between the "wettechnic civilization" (roughly, the Mech option) of the solar system proper and the bioprogramming technologies (roughly, the Shaper option) of the comet worlds.

11 Also related is the motif of telepathic mind-control, a much more conventional SF motif, to be found in Shepard's *Life During Wartime* alongside the more distinctively cyberpunk variants of the drug-induced personality and the radio-controlled zombie.

12 It seems likely that Shepard's motif of bacterially-induced personality owes something to Thomas Disch's New Wave SF novel *Camp Concentration* (1968), in which, in a medical experiment on prison inmates, a strain of syphilis is introduced which produces a temporary heightening of intelligence.
13 Another bio-punk version of the motif of collective selfhood is Sterling's "Swarm" (1982), the first of the Shaper/Mechanist stories, featuring an anthill-like collective organism (the Swarm of the title) that horribly absorbs one human interloper and establishes a symbiotic relation with another.
14 Other striking examples of the use of extrapolated technologies to motivate modernist-style perspectivism can be found in Sterling's *Islands in the Net* and Kadrey's *Metrophage*. In the former, agents of a multinational corporation wear broadcast rigs which allow their colleagues throughout the world to occupy their points of view electronically. In the latter, the modernist techniques of flashback and involuntary memory are technologically literalized through prosthetic eyes which enable the user to record and play back past scenes.
15 See above, "POSTcyberMODERNpunkISM," on Kathy Acker's rewriting of one of these simstim episodes from *Neuromancer*.
16 See Wagar and Dowling; and see above, "The (post)modernism of *The Name of the Rose*."
17 See above, "Zapping, the art of switching channels."
18 Compare the premise of the *Max Headroom* television series (in the United States, ABC, spring 1987), in which a television journalist named Edison Carter, the victim of foul play, is "resurrected" as his manic alter ego, the computer simulation Max Headroom. It transpires that Carter isn't really dead after all, so that Max doesn't replace but merely mirrors (however distortedly) his human "original." A postmodernist analogue is McElroy's *Plus* (1976), in which the supposedly deceased human protagonist, who has allowed his brain to be reused as the control system for an orbiting satellite, feeds on cosmic radiation and gradually regenerates "himself," recovering piece by piece his supposedly "lost" memories and identity.