

Cyberpunk as Naturalist Science Fiction

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Urban Naturalism for the Computer Age

Ridley Scott's film *Blade Runner* (1982), based on Philip K. Dick's novel *Do Androids Dream of Electric Sheep?* (1968), depicts a world Emile Zola, Frank Norris, Theodore Dreiser, John Dos Passos, and Raymond Chandler might have claimed as their own. The film opens with a panoramic view of an industrial megalopolis identified in screen captions as 2019 Los Angeles. Viewers discover a tangle of urban canyons, fire-spouting oil refineries, and huge pyramid-shaped high-rises. Los Angeles streets bathe in the glare of ubiquitous advertising graphics—neon signs, giant screens on the face of skyscrapers, floating dirigibles blaring out commercial messages. The city's crowds make up a multilingual mass exhibiting a dazzling plurality of ethnic or subcultural dress codes. Above all, the cityscape proclaims through its manifold logos that it is a construct of powerful corporations. In the tradition of hard-boiled detective fiction, the film's first scenes follow a private investigator (Harrison Ford) as he calls on some of the masters of this capitalistic world. Whereas in Dreiser or Chandler such figures would include steel, oil, or newspaper magnates, in *Blade Runner* they comprise corrupt policemen, genetic engineers, and robotics tycoons.

Ridley Scott's film reworks the thematics of urban naturalism and hard-boiled novels not only by scrutinizing the power structure of the urban-industrial scene but also by raising questions about the make-up of the human subjects inhabiting this dystopian environment. The pessimism of classic literary naturalism was due to novelists' suspicions that modern subjects are human beasts—characters like Frank Norris's McTeague, superficially trained into the decorum of civilization, yet driven by

ativistic urges. Instead, turn-of-the-twenty-first-century science-fiction attributes the disquieting hybridity of humans to their ever more intimate relation to machines. Most humans and animals in *Blade Runner* are cyborgs, compounding biological processes, industrial refitting, and artificial intelligence. At one point, the private investigator, who specializes in hunting down rogue androids, is asked to gauge the biological status of the robotics tycoon's secretary. It takes a personality test of more than a hundred questions, accompanied by eye scans and blush-response monitoring, for him to ascertain that the young woman fails to elicit proper levels of human empathy and is therefore an engineered organism. She is similar to 2019 Los Angeles pet snakes or fishes: the latter are handcrafted artifacts whose genes display serial numbers.

In early 1980s popular culture, *Blade Runner* marked the advent of cyberpunk, the science-fiction subgenre mapping the social relations generated by information and computer technologies. In an anecdote familiar to SF fans, William Gibson—who would become the major novelist of the budding movement—tried to see Ridley's Scott's film on its release, yet soon he had to flee from the movie theater because he felt the movie was uncomfortably close to his own vision of the future. The publication of Gibson's award-winning first novel *Neuromancer* (1984) marked the breakthrough of cyberpunk's literary production. The text—the first installment of Gibson's "Sprawl Trilogy"—popularized a thematic feature that would prove definitional for all later instances of the genre: the evocation of polities electronically interlinked by what Gibson was the first to call "cyberspace" (Gibson, "Burning" 197). The label cyberpunk itself, coined by SF writer Bruce Bethke, refers to postmodern SF's concern both with the socio-technological aspects of information-based societies and with the latter's capacity to generate subcultures comparable to those spawned by rock music. Two years after *Neuromancer*, the short-story collection *Mirrorshades* (1988), edited by Bruce Sterling, publicized previous works by other members of the cyberpunk group—Sterling himself, Pat Cadigan, Rudy Rucker, Lewis Shiner, John Shirley, Mark Laidlaw, and Greg Bear. In addition to the *Mirrorshades* authors, later writers such as Neal Stephenson and Cory Doctorow joined the movement, expanding it toward what is sometimes labeled postcyberpunk. Though cyberpunk SF has found its most sociologically and technologically sophisticated expression in literature, it has inspired a significant film corpus comprising, beyond *Blade Runner*, Steven Lisberger's *Tron* (1982); David Cronenberg's *Videodrome* (1983) and *eXistenZ* (1999); Paul Verhoeven's *RoboCop* (1987); Andy and Larry Wachowski's *The Matrix* (1998); and Steven Spielberg's *Minority Report* (2002).

Towards a Transhistorical, Transgeneric Naturalism

As cyberpunk maps the landscape of the near future, it perpetuates the tradition impelling realist/naturalist artists to provide a totalizing chart of new stages of social and industrial development. According to an admittedly schematic narrative of contemporary culture, each surge of realism/naturalism—in mid-nineteenth-century Europe, the late nineteenth-century US, the 1930s, and indeed the 1980s—matches a moment when the need was felt to assess social reconfigurations that had rendered the field of urban-industrialism illegible. Mid-nineteenth-century English authors, reacting to the Industrial Revolution, borrowed an evocative label from essayist Thomas Carlyle in order to designate this literary-didactic venture: the “Condition-of-England” novel (Kettle 165). Similarly, cyberpunk provides a late twentieth-century condition-of-technocapitalism survey: it expresses the response of early 1980s observers to the social impact of the electronic media and the digital revolution.

Anchoring cyberpunk in the realist/naturalist tradition raises problems of literary-historical mapping and genre definition, however. Cyberpunk authors claim a cultural lineage that pays abstract homage to socially oriented mimesis yet makes no explicit reference to the classic expressions of realism and naturalism and sometimes even explicitly deviates from realism altogether. Within science fiction, Gibson, Sterling, and their fellow writers acknowledge literary influences ranging from early masters like Jules Verne and H. G. Wells; pulp-fiction stories and SF comics; technologically-oriented hard SF from the 1950s to the 1970s; as well as 1960s New-Wave authors like Harlan Ellison, Joanna Russ, Philip K. Dick, Samuel Delany, and J. G. Ballard. With regard to these antecedents, the cyberpunks profile themselves as realists insofar as they plead for a return to an SF idiom offering a scientifically informed assessment of technological change. In the prefaces to *Mirrorshades* and to Gibson’s *Burning Chrome*—two texts that acted as cyberpunk’s manifestos—Sterling contends that cyberpunk aims for the “self-consistent evocation of a credible future” (“Preface,” *Burning* 10). The new genre carries out a “return to the roots” of SF, reviving the spirit of Verne and Wells against later developments (Sterling, “Preface,” *Mirrorshades* xi). In particular, cyberpunk differentiates itself from the production of 1960s and 1970s authors such as Ursula LeGuin and Roger Zelazny, whose works verge on “sword and sorcery fantasies” (Sterling, “Preface,” *Burning* 10). Sterling’s claims suggest therefore that cyberpunk fits Darko Suvin’s definition of classic SF as hypothetical realism—a literary practice applying the epistemological principles of the empirical sciences to hypothetical projections of the future

or to alternative constructions of reality (Suvin, "Poetics" 65; Suvin, "On Gibson" 352).

Still, in an apparent departure from sociological mimesis, cyberpunk also relies on antirealist postmodernist sources—the technological allegories of Thomas Pynchon and William Burroughs, for instance, from which they borrow their fascination for subcultures. Cyberpunk has accordingly been greeted as one of the pillars of popular postmodernism (Jameson 38; Tabbi 215). It has generated a theoretical corpus—cybercriticism—investigating the postmodernist thematics of humankind's shift into a posthuman future (Bukatman 30–31). Also, cyberpunk's realist credentials are undercut by the genre's anchorage within mass culture. Cyberpunk is often sensationalistic and escapist. It resorts to the epic fabulation otherwise found in hard-boiled crime fiction or space opera: its narratives promise their readers maximum excitement and the reassuring prospect of their protagonists' victory.

In this context, instead of implausibly arguing that cyberpunk fits the classic concepts of realism and naturalism, we must redraw the latter genre categories in more inclusive terms: the definitions required for the present purpose should be, metaphorically speaking, long and broad. Realism/naturalism must be stretched transhistorically to include texts chronologically remote from classic nineteenth-century instances. These definitions must also be transgeneric: they must accommodate texts that, in addition to mapping social conditions, obey conventions unrelated to the realist/naturalist canon. In previous scholarship, there have been similar attempts to identify modernistic variants of realism (Herman 148, 186), or to make naturalism compatible with postmodernist writing or late twentieth-century science (Pizer 391; Zayani 363). Serious obstacles stand in the way of these endeavors, however. First, the transgeneric reconceptualization of realism is bound to re-examine the latter's basic epistemological possibility: it requires critics to specify how texts deviating from the classic realist formula still render accounts of social reality. Second, one must determine whether the distinction between realism and naturalism retains its relevance beyond the context in which it was initially articulated. In the present case, there is no guarantee that the subject matter and philosophical outlook traditionally invoked to assert naturalism's specificity—urban poverty, proletarianization, prostitution, evolutionary determinism—will have any bearing upon contemporary SF.

Though we cannot tackle the epistemological legitimization of realism at large in these pages, we may nevertheless address the other abovementioned objections. First, realism and naturalism gain considerable trans-

generic breadth once we accept that no impassable barrier separates mass-culture narratives from serious socially oriented mimesis. Cultural studies scholars have shown that the popular narratives of crime fiction SF, or even the Hollywood western serve as carrier waves for a realist or didactic payload: the realist/naturalist components of popular texts are encoded within the broader lattice of patently non-realistic action stories (Naremore 103–04; James 198–99; Jameson 38). In this light, popular narratives turn elements that by formalist standards would be discarded as didactic digressions into the text's primary focus of interest. Additionally, cyberpunk epic narratives, however stereotypical, are socially significant in their depiction of working subjects. Gibson's fiction resorts to what Will Wright, in an analysis of Sam Peckinpah's westerns, has called the "professional plot"—stories about groups of experts with a mission (164). The protagonist of *Neuromancer* is a *noir* loser whose talents as a computer hacker are reactivated when he joins a team of characters with complementary skills—martial arts experts, computer gear salesmen, media terrorists, and subcultural groups living in the margins of the cyber culture. Narratives of this type carry out the realist agenda of circumscribing the degree of autonomy available to protagonists in the capitalistic labor market.

Second, given an adequate reading perspective, it is possible to establish that the realism/naturalism distinction lends itself to historical and transgeneric transposition after all: a naturalist variant of SF, different to some degree from its realist counterpart, can be isolated on the basis of methodological principles structurally similar to those invoked in order to mark out the same boundary in late nineteenth-century non-SF fiction. Post-World War II scholarship suggests that naturalist writing obeys a specific dialogical pattern: naturalist works play off the discourse of classic realism against elements of romance and the gothic (Walcott 1; Kaplan 158–60; Den Tandt, *Urban* 16–20). From a socio-cognitive perspective, this dialogical tension signals the interplay of two modes of perceiving and representing the social field: while classic realism depicts the familiar lifeworld—the "knowable community," to take up Amy Kaplan's term (47)—naturalism, through its appeal to romance, peers beyond this perimeter and seeks to capture what James Naremore calls the "social fantastic" (16). Naturalism's romance components can admittedly not deliver an analytical mapping of social conditions: they offer glimpses of what Mary Papke, quoting Frank Norris, calls life "[t]wisted from the [o]rdinary" (iii). Yet such romance sociology nevertheless ranks as a cognitive speech act: naturalist texts thereby mark out the limits between what ought to be

represented in art at a given historical moment and what can actually be mapped with the distinctiveness of a quasi-scientific gaze.

Ironically, transposing this rationale to science fiction risks nudging the whole of SF away from realism and towards the naturalist end of the spectrum. Everyday realism—the depiction of “the ignobly decent life,” as novelist George Gissing grimly puts it (145)—seems to have little purchase in a genre devoted to the hypothetical and the non-actual: with its tales of extra-terrestrials, inhospitable planets, and reconfigured humans SF reality seems twisted from the ordinary by definition. Therefore, in the case of SF, new coordinates must be chosen to serve as the realist pole of the dialogical axis: SF realism does not depict the everyday round of life; it imagines states of society amenable to rational political, scientific, and technological control. In other words, realist SF portrays the knowable community nearing an idealized state of closure—at the point when it has been thoroughly explored and reordered. In this logic, Edward Bellamy’s *Looking Backward* (1888) and Isaac Asimov’s 1940s robot stories qualify as realistic, whereas works portraying far less stable hypothetical societies—H. G. Wells’s *The Time Machine* (1895), Jack London’s *The Iron Heel* (1908), and indeed Scott’s *Blade Runner*—are naturalistic. Admittedly, the dialogized tension illustrated here implies no clear-cut contrast: the texts mentioned above stretch along the gradient of a dialogized field, ranging from representations of the most tightly organized societies to the portrayal of worlds accommodating ever higher levels of sociological or anthropological entropy. Nor does this distinction match the familiar binary opposing utopian and dystopian texts. Anti-utopias such as Ray Bradbury’s *Fahrenheit 451* (1953), George Lucas’s *THX 1138* (1971), or Ira Levin’s *This Perfect Day* (1970) paradoxically fall on the realist side of the line because they postulate the possibility of rational—albeit oppressive—regimentation. Naturalist SF is less one-sided. It examines what Mohamed Zayani evocatively calls “the changing relation between order and disorder”—the enactment of political and scientific rationalization as well as the obstacles that prevent the latter’s completion (349).

In this light, cyberpunk qualifies as naturalistic in so far as it focuses not only on the construction of the social fabric of information societies but also on the latter’s unraveling. Gibson’s *Neuromancer* indicates that information monopolies, however powerful, are countered by underground groups using the very means technocapitalism makes available to its population. Likewise, cyberpunk’s naturalism manifests itself in the suggestion that the technological reshaping of the living subject brings with itself the latter’s grotesque distortion. In Bruce Sterling’s *Schismatrix* (1985), “super-

bright” mutants see their genetically boosted intelligence veer toward psychosis (243). Many of Gibson’s characters favor monstrous technobiological enhancements, giving rise to what I call the posthuman gothic (see below). Finally, cyberpunk displays the naturalist propensity to highlight the consequences of social, technological, and biological malfunctioning. Camera implants in Gibson’s stories, unless crafted by prestigious brands such as Zeiss Ikon, destroy their owners’ optic nerves (“Burning” 212). In Sterling’s *Schismatrix*, orbital stations end up devoured by parasitical bacteria. Comically, in the same novel, technologically advanced aliens whom humans admire for their mastery of interstellar travel can be blackmailed for sexual perversion (138).

Cyberspace/Metaverse/Matrix: The Information Society as Electronic Grid

Cyberpunk’s approach to social cohesion and entropy is inseparable from its depiction of electronically interlinked polities. In this matter, cyberpunk authors have played a role that pre-1980s SF had somewhat relinquished: they acted as Jules Verne-style futurologists, anticipating the practical implementation of technologies that had only been theorized in overly optimistic terms by techno-propagandists (Marshall McLuhan, Alvin Toffler), and had thus far been the preserve of scientists and the military. With regard to science fiction itself, cyberpunk’s interest in the social impact of computing signalled a change in emphasis. Cybersystems and artificial intelligences were not absent from previous SF, but they were overshadowed by the genre’s fascination for space exploration, extraterrestrials, mutants, and android robots. Cyberpunk reversed these SF priorities as it registered a change in the popular representation and marketing of computer technology. Until the 1960s and 1970s, data systems had been depicted as colossal machines operated by the faceless technicians of military, state, or industrial apparatuses. Cyberpunk, on the contrary, made visible the social bond generated by what Joseph Tabbi calls the “populist technology” of the 1980s—mass-consumption devices such as personal computers and game consoles (218). The triumph of cyberpunk’s futurological approach in this matter was the literary or filmic representation of the virtual field of interfacing now called the Internet. Though a few major cyberpunk works—*Blade Runner* or Sterling’s early fiction—make no reference to global interconnection, the genre would probably not have become an identifiable subset of SF had William Gibson failed to sketch out what computer users would discover only a decade later.

It is symptomatic of SF’s anchorage in naturalism that cyberpunk

should make the Internet's flow of electronic interfacing perceptible under the guise of virtual cities—electronic environments structurally similar to the real-space urban fields. The cyberspace “matrix,” Gibson suggests in “Burning Chrome” (1982) and *Neuromancer*, is a “consensus hallucination” providing “an abstract representation of the relationships between data systems” (“Burning” 196). The data thus stored and exchanged takes on the visible shape of “an endless neon cityscape” (*Neuromancer* 256) displaying the “bright geometries” of its virtual buildings and information thoroughfares (“Burning” 197). In this, cyberpunk authors illustrate metaphorically what urban studies researchers call the “virtualization” of urban experience—the shift from conviviality in phenomenal space to computer-generated social bonds (Ghent Urban Studies Team 88). Real-space city settings in Gibson's early works—notably the “Sprawl,” a megalopolis extending from Boston to Atlanta (*Neuromancer* 43)—are mirrored in an electronic matrix that in its densest spots displays such structures as a “blue neon replica” of the RCA building (*Neuromancer* 257). Neal Stephenson's *Snow Crash* (1993) provides an even more detailed account of how computer cities are constructed. This cyberpunk thriller unfolds partly in the “Metaverse”—Stephenson's name for cyberspace (24). Within this field, computer hackers have created a virtual city called “the Street” (24). The latter is a software-generated real estate tract shaped as a “grand boulevard going all the way around the equator of a black sphere” (24). As such, the Street resembles a Las Vegas-like digital Strip with a diameter “considerably bigger than Earth” (24). Its tectonics fit the mindset of computer nerds: it accommodates programmers' wildest fantasies, provided these constructs fit within a digital grid measured according to powers of two. Similarly, Andy and Larry Wachowski's *The Matrix* drives the virtualization of urban space to its mystifying fulfillment. Naïve urbanites in this film mistake cyberspace for the actual texture of everyday life. Only guerillas who have withstood a painful awakening process know that this inauthentic cyberenvironment should by right be represented in the form of computer screens displaying a ceaseless drip of cryptic digits.

Cyberpunk's virtual cities are proper objects of transgeneric naturalism in so far as they are not reducible to knowable communities: the apparent clarity of their neon-like lattices is riven by fractures and contradictions. On first inspection, the cybercity fulfills a fantasy that haunts the classic naturalist representation of the urban world—the possibility to depict an environment where social exchanges unfold on a single plane of existence. Zola's Rougon-Macquart cycle famously links all segments of French society to the biological chain of one extended family. Theodore Dreiser's city

novels present the urban spectacle as the manifestation of “[l]ife” or “the world” (*Titan* 12; *Sister* 485). Frank Norris’s *McTeague* (1899) and *The Octopus* (1901) portray the US economy as the traffic of one single commodity: gold in the former case, wheat in the latter. Likewise, the fictional sociology of cyberpunk takes for granted that information itself constitutes the unifying principle of all economic and social exchanges. Still, neither in classic naturalism nor in postmodernist SF does this monist concept of the urban economy prove sustainable. The classic naturalist city resists the efforts of protagonists and authors who seek to appropriate it as a manageable object. Likewise, the cybercity’s field of data, which should by right be transparent to cognition, is not amenable to knowledge and political control. Therefore, cyberpunk juggles with contradictory epistemological and political evaluations of its electronic world. Two axes of uncertainty structure this unstable mapping game: the texts explore whether the cybercommunity is a closed or open field; simultaneously, they investigate whether it offers a utopian or dystopian environment.

Cyberpunk’s depiction of the electronic city manifests authors’ rejection of a closed, dystopian information society and, conversely, their endorsement of a pluralistic, utopian one. The threat of seeing the information society act as a repressive total system was one of the obsessions of early 1980s postmodernist theory. Jean Baudrillard, in his reflections on what he calls the simulacrum, offers a provocative formulation of this view (*Simulacres* 10; *Amérique* 9). He contends that late capitalism deploys utterly impersonal signifying processes—a field of simulacra entirely closed in upon itself. In a famous passage inspired by Jorge Luis Borges, Baudrillard illustrates this notion by comparing the postmodern signifying economy to a map that has erased the territory it was meant to represent: the technologically generated signs of consumerism have phagocytized real-world objects and subjects (*Simulacres* 9). If nothing subsists beyond these simulacra, individuals are left without any means to put their consumerist lifeworld to the test of reality and thereby to resist it.

Cyberpunk’s response to such abstract technocatastrophism is emblematic of the potentialities of naturalist SF defined above. Baudrillard’s depiction of postmodern American cities takes for granted that social institutions and subjects have been emptied out of existence, making urban space equivalent to the desert (*Amérique* 66). The cyberpunk city seldom resembles this nightmare: it still features distinct landmarks and agents—capitalist conglomerates, in particular—with assignable, albeit fictional names: the Tyrrell Corporation (*Blade Runner*), Ono-Sendai (Gibson’s *Neuromancer*), or Blue Ant (Gibson’s *Zero History* [2010]). SF novelist

Samuel R. Delany has congratulated Gibson and his fellow writers for highlighting the industrial aspects of the information age, thereby making capitalism a topic of popular SF for the first time (Dery 197). This gesture of political demystification is illustrated in Gibson's *Virtual Light* (1993), where protagonists use enhanced-reality glasses allowing them to spot the network of capitalist ownership structuring the San Francisco cityscape (133). The socio-political landscape revealed thereby is too determinate and too open to consciously articulated power strategies to qualify as a total system.

Similarly, cyberpunk counters the prospect of a homogenized cyberworld by its representation of hypothetical subcultures of the electronic age. In this, Gibson, Sterling, and Stephenson emulate Thomas Pynchon and William Burroughs, whose fiction sets itself the task of imagining the various manifestations of a "counterforce" (Pynchon 611). Accordingly, Gibson's narratives churn out a roster of eccentrically named groups with countercultural or criminal pursuits: "Johnny Mnemonic" (1981) features a band of Luddites called the "Lo Teks" and a Yakuza brotherhood named the "Sons of the Neon Chrysanthemum" (28, 17); *Neuromancer* introduces the "Panther Moderns" cyberguerillas and the "Zionite" Rastafarian orbital station (57, 103); *Virtual Light* follows the adventures of anti-capitalist "Cognitive Dissidents" (131). Similarly, Sterling's *Islands in the Net* (1988), echoing Gilles Deleuze's and Felix Guattari's libertarian theories, introduces the "Rizome" network of economic democrats and their opponents, the Free Army of Counter-Terrorism or "F.A.C.T" (3, 132). Sterling's *Schismatrix* offers a catalogue of posthuman subcultures divided among advocates of genetic programming (the "Shapers") and of techno-prosthetic enhancements (the "Mechanists") (5). Stephenson's *Snow Crash* and *The Diamond Age* (1995) provide satirical surveys of a fragmented global culture where nation states have been eclipsed by planetwide privatized franchises such as "CosaNostra" and a Neo-Victorian fraternity called "Atlantis" (*Snow* 35; *Diamond* 12). Overall, through its commitment to social pluralism, cyberpunk evokes a postindustrial configuration in stark contrast not only with Baudrillardian total-system theories, but also with golden-age SF. The nodal points of the cyberpunk world are no longer the power centers of a technocratic elite but marginal environments such as shady computer stores, underground clubs, orbital leisure resorts, and hide-outs for corporate mercenaries. These settings spread across several planes of being—phenomenal, virtual, and orbital—making up a pluralist space that might best be called a postmetropolis. In this world, social bonds based on solidarity give way to what Sterling calls "[f]luidarity" (*Schismatrix* 216).

Still, alongside the endorsement of postmetropolitan fluidarity, cyberpunk discreetly gives voice to nostalgia for a utopian form of closure—an emotion rooted in anxieties over techno-induced social and existential dissociation. Gibson develops this theme in passages reflecting on the possibility to achieve a total grasp of cyberspace. In *Mona Lisa Overdrive* (1988), the leader of a youth gang living in a New Jersey industrial waste land is obsessed with “the Shape” of the matrix (75). He investigates this question with the help of a protagonist whose deep immersion in cyberspace allows him to dialogue with the “loa”—voodoo-like entities presiding over the matrix’s fate (10). In Gibson’s *Count Zero* (1986), a young gallery operator is asked to locate the creator of ready-mades reminiscent of surrealist sculptor Joseph Cornell’s collage boxes. Each of these art works is a microcosmic “universe” made up of odds and ends of the cyber-postmetropolis, thereby allegorizing the latter’s putative closure (28). Both the ready-made artist of *Count Zero* and the electronic Voodoo deities in *Mona Lisa Overdrive* are revealed to be artificial intelligences—a narrative twist signalling that the totality of the cyberenvironment remains elusive to human subjects. Similarly, several subcultures of Gibson’s, Sterling’s, and Stephenson’s cyberworld paradoxically yearn to revert to pre-electronic harmony. The Rastafarian Zionites of *Neuromancer* regard the postmetropolis as a distended version of fallen Babylon (248). Sterling’s *Schismatrix* depicts an orbital city-state—the Neotenic Cultural Republic—that disavows fluidarity and advocates conservative “[p]reservationist” policies (230, 11). Stephenson’s Atlantis New Victorians preach a social discipline that counteracts the centrifugal drift of the technologies they otherwise zealously develop.

Posthuman Gothic

Beyond the nostalgia for a retotalized lifeworld, misgivings about cyberpluralism underlie the often gruesome fashion with which SF authors represent the technological reconfiguration of human bodies and subjects. Cyberpunk signals its hesitations about the value of technological change by developing a discourse of posthuman gothic. I have argued elsewhere that classic naturalism approaches new urban conditions with a mixture of fascination and disgust, thereby giving rise to a naturalist variant of the urban fantastic (*Urban* 124–30). In turn-of-the-twentieth-century texts, these troubled emotions are stirred by the social, ethnic, and gender features of the populations of fast-developing cities. In cyberpunk, gothic discourse issues from the defamiliarizing modes in which human subjects interface with software and machines. This aspect of the near future fuels, on the one hand, utopian hopes about the enhancement of mind

and body: Scott Bukatman celebrates the advent of what he calls a “terminal” subject linked to its environment through multiple connections (9); Donna Haraway looks forward to an egalitarian polity of “[c]yborgs” transcending human restraints (149). On the other hand, the posthuman condition stirs fears of the traumatic reshaping, even the loss of the subject. When the development of the cybersubject is viewed negatively, the resulting critique of technology amounts to an indictment of information capitalism. Computer systems, cyberpunk authors suggest, drive reification to new extremes: their technology is, as Sterling puts it, “invasive” and “visceral,” and as such is capable of introducing privatization, exploitation, and inequality into aspects of the human experience that had hitherto been sheltered from it (“Preface,” *Mirrorshades* xiii).

There is admittedly some grim playfulness in cyberpunk authors’ portrayal of posthuman reconfigurations. Early 1980s texts—Gibson’s “Sprawl Trilogy,” Sterling’s Shaper/Mechanist cycle—compete in imagining the most eccentric couplings of body, consciousness, prosthetics, and data. The thematic topography of this posthuman bestiary is structured by an axis whose polar opposites are, on the one hand, the expansion and metamorphosis of bodies and subjects and, on the other, their disruptive invasion and hybridization. Posthuman expansion is the keynote of a thematics of technopsychedelism. In a fashion reminiscent of Burroughs’s surrealistic SF novels, jacking into cyberspace is compared to shooting mind-expanding drugs. Casey, the protagonist of *Neuromancer*, is initially portrayed as a cyberaddict who has been severed from the matrix for weeks. When he jacks in again, the experience has the value of a heroin high. Likewise, in *Count Zero* and *Mona Lisa Overdrive*, characters seeking an ever deeper immersion into the matrix follow the curve of a worsening addiction. Sterling’s Shapers/Mechanist cycle depicts posthuman enhancements in more optimistic colors. Mechanist expansion is illustrated in the figure of protagonists nicknamed “wireheads,” whose reliance on mind-to-computer interlinking and technological prosthetics takes them beyond human physicality (*Schismatrix* 195). The eponymous heroine of “Spider Rose,” for instance, is the two-hundred-years-old custodian of an orbital station. She is “brain-linked” (259) to multiple sensors, allowing her to gaze “a quarter of a million miles into space” (259). The Shaper version of posthuman expansion, achieved through genetic programming, produces figures such as Kitsune in *Schismatrix*. The former employee of a brothel franchise called the “Geisha Bank,” Kitsune reshapes herself into a full-fledged orbital world powered by giant multiple hearts (11). This new

organic tourist resort boasts walls of human flesh and furniture made of ivory cloned from Kitsune's teeth.

The invasive/hybridizing dimension of the posthuman make-over—the colonization of bodies and minds by information technology—is arguably one of cyberpunk's most familiar themes. Gibson introduces it in "Johnny Mnemonic": the eponymous character's skull is graced with a computer plug allowing him to store information on an "idiot/savant basis" (15); the data is secured by a password to which Johnny has no access. Similarly, protagonists in *Count Zero* enhance their value as mercenaries by downloading into their nervous system software packages conferring instant foreign-language proficiency or airplane-flying skills. In the same novel and in *Mona Lisa Overdrive*, Gibson drives the logic of techno-invasion to its logical conclusion by introducing a character—Angie Mitchell—who has been grafted neural "receptors sites" allowing her to access cyberspace without hardware connection (*Mona* 18). Angie experiences her organic relation to the matrix as a quasi-psychotic experience: her mind echoes with the voices of the electronic Voodoo loa.

Technological invasion is inseparable from hybridity, since the introjected augments interact with the human substratum in order to create new posthuman life forms. Gibson's "Johnny Mnemonic" features two transsexual club bouncers called the Magnetic Dog Sisters, who have reshaped themselves into thin, muscular, greyhounds—one white, the other black. The Lo Teks rebels in the same story boast fang-like implants borrowed from Doberman pinschers. The posthuman cultures depicted in Sterling's *Schismatrix* and in Rudy Rucker's erotic stories are more eccentric still: the Lobsters in *Schismatrix* are cyborgs whose previously human consciousness has been introjected into shell-like bodies that withstand the vacuum of deep space. Rucker's *Freeware* (1997) depicts the various ways in which intelligent augments may be added to human bodies for erotic purposes. Technohybridity, these examples suggest, acts as cyberpunk's major source of gothic intensities because it involves the redrawing of key existential boundaries. Gibson's early fiction introduces a device called simstim, which allows users to share another person's perceptions, violating traditional concepts of selfhood. Other techniques create beings straddling life and death: the characters of *Neuromancer* seek the help of Dixie Flatline—a deceased hacker whose consciousness has been preserved on disk; in *Count Zero*, the wealthy Herr Virek lies in near-death state in hospital, yet he summons guests to his virtually generated mental world. Predictably, characters find The Flatline's software-generated laughter chilling and Virek's virtual bubble uncanny (*Neuromancer* 169; *Count* 25).

Cyberpunk and the Politics of Naturalism

In political terms, the ambivalence with which cyberpunk approaches the social landscape of the near future constitutes still another transhistorical link to earlier stages of naturalism. For most of the twentieth century, the fiction of Zola, Norris, and Dreiser was interpreted as a vehicle of liberalism and left-wing politics. Yet in recent decades, naturalist politics have been re-evaluated in less idealistic terms. Scholars have highlighted the novels' lapses into sexism and racism, and their covert fascination with nascent consumerism (Den Tandt, "Refashioning" 405). Naturalism's hitherto unacknowledged ideological complexity is noticeable in its reluctance to attribute a stable value to the social phenomena it depicts. Frank Norris's *The Octopus* initially praises the struggle of California farmers against railroad trusts only to endorse the same corporations' conquering spirit in its last pages; Dreiser's *Sister Carrie* depicts Chicago streets both as "wall-lined mysteries" and as channels in "the great sea of life," thereby hinting that this site of capitalistic alienation may enigmatically buoy up vital energies (7, 13). By the same token, it is not clear whether cyberpunk, with its mixture of utopian and dystopian accents, glamorizes or debunks the virtualized postmetropolis and its posthuman reconfigurations. Its utopian component is expressed in Gibson's belief that "the street finds its own use for things": a pluralist street culture is able to turn new technologies to emancipatory ends ("Burning" 215). Yet cybercritics such as Joseph Tabbi and Mark Dery wonder whether, under its veneer of political dissent, postmodern SF does not merely exacerbate its audience's craving for capitalistic gadgetry (Tabbi 218; Dery 194). Hampered by the sensationalism of popular literature (as classic naturalism may have been by the ambiguous intensities of the gothic), cyberpunk might lack the analytical subtlety to make good on its intended critique of technocapitalism.

Without dismissing this negative judgment, one may object that the chief value of classic naturalism and cyberpunk has been less their capacity to analyze an emergent social configuration consistently than to make the latter available for literary negotiation. Ambivalence is in this respect imputable to the shock of the new—the discovery of urban industrial consumerism in the former case, the response to infocapitalism in the other. If so, the greater political peril incurred by naturalism old and new lies less in unrefined political evaluation than in the absence of social mapping altogether. The evolution of cyberpunk beyond the 1980s has unfortunately veered towards this pessimistic scenario. The SF field in recent decades has been characterized, on the one hand, by the dissemination of cyberpunk's

technological imagery in superficial form through feature films and television, and, on the other, by the dominance of the dragon epics of heroic fantasy. In these circumstances literary cyberpunk has failed to retain its dialogical balance: as it morphed into postcyberpunk, its realist and naturalist components have grown asunder. Gibson's later novels—*Pattern Recognition* (2003), *Zero History*—take the realist path: they shun defamiliarizing technological speculations, and provide a fragmented portrayal of a postindustrial present discreetly altered by the information economy. Stephenson's recent fictions—*Cryptonomicon* (1999), or his sprawling "Baroque Cycle" (*Quicksilver* [2003], *The Confusion* [2004], and *The System of the World* [2004])—opt for naturalist romance: they resort to uninhibited fabulation on scientific and technological topics. In the process, the delicate equilibrium of hypothesis and observation required for naturalist SF is found missing.

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