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CYBERSPACE, THE NEXT FRONTIER?

by

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Abstract

This thesis examines cyberpunk literature, more specifically the novels of William Gibson, with the intention of gaining a better understanding of this literature and why it has become emblematic, if not symbolic of many facets of contemporary culture.

Computer technology continues to play an increasing role in people's lives, mediating everything from the way they work and play, to the ways in which they interact. The fictional world of *cyberspace,* and its real-life counterpart *virtual reality*, will have a significant impact on what it will mean to be human in the twenty-first century, as this new technology is deployed in the new electronic frontier.

The thesis explores the genre of cyberpunk in chapter 1, paying particular attention to the language used by its authors and the role that the body plays in this literature. Chapter 2 establishes a framework for examining cyberspace and virtual reality with an emphasis on the implications of cerebral links to machines which enable people to operate, essentially, on two planes at once. Chapter 3 places cyberpunk within the discourse surrounding postmodernism, and seeks to establish a relationship between the increasing fragmentation of life in postindustrial society and the *pastiche* style of cyberpunk.

Finally, the thesis contends that the dystopian vision which permeates Gibson's work is echoed in much of the discourse on postmodernism and late capitalism. There is a need for a better understanding and a more substantial monitoring of these new technologies as they lead to the new frontiers of the future.

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INTRODUCTION

Underneath the reality in which we live and have our being, another altogether different reality lies concealed. Frederich Nietzsche

As we proceed into the twenty-first century we seem to be on the threshold of a new frontier. Unlike the frontier of the Wild West, with its slow development into "civilization," cyberspace is progressing at the alarming pace that we have become accustomed to in this computer age. We are also living, as we have been told, in a "postmodern" age where change and diversity have become the order of the day. In the introduction to *Postmodernism: Or, The Cultural Logic Of Late Capitalism*, Fredric Jameson states that " . . .the postmodern looks for breaks, for events rather than new worlds, for the telltale instant after which it is no longer the same; for the 'When-it-all-changed,' as Gibson puts it, or, better still, for shifts and irrevocabie changes in the *representation* of things and of the way they change" (Jameson,1991, p.ix). It is perhaps with a touch of irony that Jameson, in a footnote to his quote from William Gibson's *Mona Lisa Overdrive*, feels compelled to add: "This is the place to regret the absence from this book of a chapter on cyberpunk, henceforth, for many of us, the supreme *literary* expression if not of postmodernism, then of late capitalism itself" (Jameson, 1991, p.ix).

This thesis will undertake to respond to Jameson's omission by exploring the nature of cyberpunk literature, and more specifically the novels of William Gibson. The purpose of this examination is to gain a better understanding of this literature and why it

has become emblematic, if not symbolic of many facets of contemporary society. Is cyberpunk literature merely a passing fad, or does it represent, as Jameson suggests, our so-called postmodern world in the twighlight of the late stages of capitalism?

Although there are many science fiction writers labouring under the rubric of cyberpunk, (some of whom will be discussed later), it is Gibson's ground-breaking novel *Neuromancer* which gave public stimulus to the "movement" and it is Gibson's work that is often emulated by other writers. Suffice to say that cyberpunk and Gibson have become synonymous.

Using Gibson's three novels, various short stories, as well as a body of critical literature that examines the phenomena of cyberpunk, cyberspace, and virtual reality, the thesis will be divided into three chapters. Chapter one begins with a brief explanation of cyberpunk, and continues with a discussion of the relationship between language and technology, more precisely, with the effects of technological language on perception and identity. Gibson's use of the "cyberspace" metaphor, a computer-generated space where data, and people are stored and transferred, and "console-cowboys" who are able to "jack" directly in to these computers, and hence directly into cyberspace, necessitates a discussion about perception and identity. The difference between what is "real" and what is perceived to be "real" is being continually challenged in Gibson's writing, and the language he uses is a key factor to bridging our perceptions about "reality." Essentially, what happens on the pages of Gibson's novels is a breakdown of "old" language before the direct experience of the "new" can be contemplated. This chapter therefore explores the relationship between the "body" and

technology in cyberpunk literature and contemplates the question of empowerment in a society that is becoming increasingly "dehumanized."

The purpose of the second chapter is to enter into a discussion about cyberspace and its counterpart in the "real" world, virtual reality (VR). Gibson's fictional cyberspace has been hailed as a new scientific frontier, its pioneers experimenting with artificial environments and realities. For example in his exploration of the revolution taking place in the study and manufacture of computer-generated artificial worlds, Howard Rheingold presents an intriguing glimpse of a "possible new world in which reality itself might become a manufactured and metered commodity. Although it sounds like science fiction, and the word "cyberspace" in fact originated in a science-fiction novel, virtual reality is already a science, a technology, and a business, supported by significant funding from the computer, communications, design, and entertainment industries worldwide" (Rheingold, 1991, p.17).

Building on earlier discussions of virtual reality, chapter three is devoted to a discussion of cyberpunk and postmodernism. If, as Jameson suggests, cyberpunk literature is to be regarded as the supreme literary expression of postmodernism, or late capitalism, then some attempt must be made to examine the texts for their alleged "postmodern" qualities.

Western societies have witnessed an immense change in the areas of culture, mass media, and the technologies of information dissemination. This is not to say that the term "postmodern" explains all these changes, for there are some who believe that postmodernism is nothing more than a passing fad, another advertising pitch. But there

are those who view postmodernism as an emerging force, as Andreas Huyssen states:

" . . .part of a slowly emerging cultural transformation in Western Societies, a change in sensibility for which the term 'postmodernism' is actually, at least for now, wholly adequate" (Huyssen, 1986, p.181). Huyssen's main concern in his "mapping" of the postmodern is whether or not, in the transformation from the previous period to this one, there has been "generated genuinely new aesthetic forms in the various arts or whether it mainly recycles techniques and strategies of modernism itself, reinscribing them into an altered cultural context" (Huyssen, 1986, p.181). The concept of "pastiche" has often been used in describing postmodern literature, and there are certainly examples of it in Gibson's writing. However, this does not necessarily mean that nothing "new" is happening in Gibson's novels, that he only offers the past with a new face. In order to focus a discussion of Gibson's work within the framework of postmodern theory and debate, I plan to pay particular attention to the concept of "pastiche," in particular, how Gibson's use of language and images of popular culture serve to incorporate everyone and everything into its fold. Thus, the cyberpunk experience ultimately offers us an alternative way of looking at and into the future.

Chapter 1

THE CYBERPUNK EXPERIENCE

The fundamental metaphorical message of the computer, in short, is that we are machines - thinking machines, to be sure, but machines nonetheless. Neil Postman

WHAT IS CYBERPUNK?

The term "cyberpunk" was first used by writer-editor Gardner Dozois in an effort to describe a group of science fiction writers who emerged in the mid-1980's. There is no one novel or story which epitomizes this sub-genre of science fiction, suffice to say that it is a movement that can be best described by its fusion of high-tech surroundings (*cyber-*), with a counter-cultural, third world, nihilistic denial of American middle-class values (*punk*). Brooks Landon offers the following definition:

> The 'cyber' takes off from Norbert Wiener's 'cybernetics,' the science of information and control in biological, electronic and mechanical systems. One implication of Wiener's theory was that humans and machines could be analyzed in much the same terms, and cyberpunk writers dramatize this assumption through designer biotech and direct contact between human and electronic processing systems. . . .The 'punk' in cyberpunk is more atmospheric than descriptive, indicating a broadly dissatisfied, energy-charged attitude, a loose kinship with garage-band rock, rather than specific beliefs. Punk here has more to do with 'unofficial' views than angry ones, more to do with the gleeful daring of computer hackers than with surly spiked-hair youth. (Landon, 1987, p.30)

One thing that is loud and clear from this definition is that cyberpunk writers are very concerned about our interactions with computers. Whether they will be ultimately

judged as celebratory or critical of these interactions remains to be seen, but there exists a keen awareness that our relationship to technology is changing rapidly. One of the important messages of cyberpunk, as Landon states, is that "drugs, whether medical or recreational, and electronics have already changed us and our understanding of the world; indeed of what it means to be human . . ." (Landon, 1987, p.30). Landon argues that we have been exposed to these messages cinematically through films such as: "Videodrome," "BladeRunner," "Scanners," "Altered States," "Lawnmower Man," and "Total Recall," to name just a few. What these films and books are presenting is a "fast-forward future" that is so culturally complicated and so technologically determined "that no individual can do much more than survive, relatively powerless, but not particularly upset about it" (Landon, 1987, p.28). This cyberpunk future, while it celebrates its medical and technological marvels, has a definite "post-apocalyptic" feel to it, gritty, dingy, without much hope for a better tomorrow. As one critic puts it: "The future in the cyberpunk world, no matter how astonishing its technological detailing, is always shockingly recognizable - it is our world, gotten worse, gotten more uncomfortable, inhospitable, dangerous, and thrilling" (Rosenthal, 1991, p.85). It is interesting to note that the technology that is usually celebrated is also, ironically enough, associated with the downfall of society.

This raises the issue of the implicit "culture" of cyberpunk, a culture steeped in accumulation, technology, and change. Cyberpunk's "mirrorshades" (those surgically implanted mirrored sunglasses, which are contoured to the face allowing nothing in) seem to represent the looking back upon ourselves for any answers about our changing

world. But they also represent a block to any kind of inward glance at those spearheading these changes.

It is no surprise that we are undergoing a contemporary transformation of production and consumption that is drastically changing our lives. And cyberpunk appears to be highlighting these changes better, clearer than any other contemporary art form. As Pam Rosenthal states: "Cyberpunk is interested in a world shaped by transnational corporate hegemony, new forms of core-periphery economic relationships, world-beat culture, and identity subcultures" (Rosenthal, 1991, p.81). Unlike other subcultures though, cyberpunk has far-reaching implications for all facets of society, not just a bunch of "hackers" running around in "mirrorshades." As a society we have yet to come to grips with just how the computer is really affecting our lives, not in the normal ways people think of, banks, office work, records, etc., but in the "inner spaces" of computers and the human body, places that have become, as Brooks Landon says, "the new frontiers and the new battlegrounds" (Landon, 1987, p.28). This fact is reiterated by another observer who sees cyberpunk as our "reaction to the sudden hegemony of the computer, intruding into our lives in intensely personal ways, rather than as the monolithic agencies seen in 1950's SF. Cyberpunk typically invests considerable energy in the surfaces of technology retrofitted into [sic] scruffy future" (Benford, 1988, p.19). Let us take a closer look at that future.

THE CYBERPUNK FUTURE

For many, cyberpunk constitutes an art form that tackles head-on the problems

and complexities of contemporary society. It deals with technology in ways that other art forms shy away, partly out of contempt for anything new, partly out of fear. In a recent issue of *Mississippi Review* (devoted entirely to cyberpunk), Larry McCaffery discusses the emergence of cyberpunk as an artistic movement. Cyberpunk, he states, "has found a means to mirror its era's central motifs, obsessions, and desires (and render these correctly, through the dominant cultural imagery). The aura of urgency and energy surrounding cyberpunk also results from the failure of most of the other arts to acknowledge the massive changes (many of then technological in nature) taking place around us daily" (McCaffery, 1988, p.8).

As McCaffery suggests, cyberpunk is concerned with what is happening to society **today**, even though its inclusion as a sub-genre of science fiction would signify otherwise. We live in a technological age where the future does not imply, as it has in the past, some distant existence generations away. Now, the future is upon us before we have time to react to its implications, before we have time to adjust to the present. One might even go as far as to say that there exists a whole rhetoric of the future - a rhetoric, or discourse, constructed around future concepts that indoctrinates us with ideas on how it might be. There is perhaps not enough hard evidence to suggest that technology is taking over our lives, (and even if it were, to acknowledge this would mean a lapse into technological determinism), but the ground rules have surely changed. It is no longer a question of "using" technology, but rather a question of how we "interact," "interface" with it. In short, cyberpunk literature asks one of the central questions facing contemporary society: "What's it mean to be *human* in today's world?"

(McCaffery, 1988, p.8). To this we can add: How will we adapt to the new meaning of humanness, and, what does this suggest about the future?

Cyberpunk does little more than hint at what the future may be like, and its vision is a bleak one of multinational control over every facet of our lives. In "The Gernsback Continuum," Gibson's short story about a project concerned with an illustrated history of 'American Streamlined Moderne,' titled: "*The Airstream Futuropolis: The Tomorrow That Never Was*," the protagonists are discussing American designers of the 1930's, in particular the design of a huge airplane, complete with dining room, two squash courts, sundecks, etc. When one of the project leaders is questioned as to whether the plane could possibly fly, (and of course it could not) the reply is: . . ."The designers were populists, you see; they were trying to give the public what it wanted. What the public wanted was the future" (Gibson, 1986, p.26). While there has always been this fascination with what the future will bring, it has usually been tempered by the fact that it will be future generations who would be living the realities of these futures. This is changing. Now the fictional world of "cyberspace" and the real world of Virtual Reality are shockingly close. What this means is that the gap between future and present is indeed very narrow.

The narrowness of this gap is the main reason for cyberpunk's popularity. As McCaffery points out, as an art form it seems to be the only one

> dealing with the most crucial political, philosophical, moral
> and cultural issues of our day. These issues include: The
> far-reaching implications of the breakthroughs being made
> recently in cybernetic and genetic engineering, in organ
> transplants, and artificial intelligence research; the equally
> significant developments having to do with information

storage - and in particular, the ways that computerized data
banks are controlled and owned by multi-nationals (in
short, the increasing monopolization by private business of
information, and the ways this monopolization is used for
the purpose of wielding power and control over nation-
states and individuals); . . .the massive expansion of the
"culture industry," an industry indiscriminately seeking
profits from the sale of everything from lite [sic] beer to
Presidential images, detox centres, famine relief, invasion
and salvation. (McCaffery, 1988, p.9)

In other words, everything that is concerned with the most intimate reaches of our

imaginations, our self definitions, and our desires are in the process of being controlled

by outside forces. Although this may appear to be fatalistic, if not hinged on paranoia,

there is wide-spread concern that this in fact is exactly what is happening.

For the most part, the cyberpunk writers' roots are deeply entrenched in the

sixty-year tradition of science fiction writing. While each writer may have different

literary debts to pay, their common thread, as Bruce Sterling puts it, is that they are

perhaps "the first SF generation to grow up not only within the literary tradition of

science fiction but in a truly science-fictional world. For them, the techniques of

classical "hard SF" - extrapolation, technological literacy - are not just literary tools but

an aid to daily life. They are a means of understanding, and highly valued" (Sterling,

1986, p.xi). What is implied here is that these writers are trying to provide answers for

their readers, as well as themselves, to the questions posed by a technological society -

an information society run by computers and their programmers.

The key to understanding this new society is basically the same as understanding

any new society: you must learn the language. Tom Maddox addresses exactly this in

his short story "Snake-Eyes." A computer named "Aleph" speaks in its computer-

generated voice to George who has had wires of some sort implanted in his brain (called snakes) as part of an experiment: "It's all information," the voice said - its tone not colorless but sexless, and somehow distant. "What we know, what we are. You're at a new level now. What you call the snake cannot be reached through language - it exists in a prelinguistic mode - but through me it can be manipulated. First, however, you must learn the codes that underlie the language. You must learn to see the world as I do" (Sterling, 1986, p.23). With these words, Maddox creates a relationship of dependency between "human" and "computer," a relationship which while acknowledging language, at the same time negates its usefulness unless certain codes are learned - codes which only the computer can provide. This dependency, a kind of one-sided relationship, is at the core of cyberpunk fiction.

Another fascination for most cyberpunk writers is the apparent decay of Western civilization. The predominant landscape for the cyberpunks is a world that is so technologically determined and culturally complicated that individuals can do no more than attempt survival. "High" culture is dead, replaced, or rather surpassed, by pop culture, pop icons, and the American Dream run amok. Only a handful of "Multinationals" are in control, seemingly all-powerful yet challenged by a sub-culture of black marketeers and information pirates. Human life seems to have little or no value, while genetic manipulation and artificial evolution of the species is the norm. The characters in cyberpunk novels are often fitted with everything from surgically implanted nodes for direct "jack-ins" with computers, to razor-blade fingernails and permanently installed mirrored sunglasses. These sunglasses, as Brooks Landon

suggests, are a

> sign of a multifaceted, polished chrome future in which
> reflection - surface - becomes the new reality. In the
> future according to cyberpunk (as in the present according
> to most cultural critics), electronic images, holographs,
> clones, cyborgs, and hallucinations intermingle in a world
> where copies are often better than the originals, where
> almost everything reflects, replicates, or imitates something
> else. . . .What we see reflected in cyberpunk's
> mirrorshades may be nothing less than ourselves, the
> charged-up future of their stories a direct extrapolation of
> our present. (Landon, 1987, pp.30-31)

Although on the surface this does not seem any different than, say, the "Six Million

Dollar Man," the surgery here is done for augmentative reasons not reconstruction. In

other words, it is a part of the fashion of a high-tech world.

This is precisely the world that Gibson gives us with his "Sprawl" trilogy:

Neuromancer; Count Zero; and *Mona Lisa Overdrive*.[1] Right from the start

Neuromancer sets the tone for this high-tech world. Chiba, one of the cities in Gibson's

Sprawl, is a "magnet for the Sprawl's techno-criminal subcultures" (p.6), while "Night

City was like a deranged experiment in social Darwinism, designed by a bored

researcher who kept one thumb permanently on the fast-forward button" (p.7). The

social project envisioned by Gibson here combines a survival-of-the-fittest-overload with

high-tech crime. Technology has lost its sheen. It is no longer defined as "everything

we learn," or "the application of science to the solution of industrial problems," it is

now a symptom of the problems. Once cities and their inhabitants co-existed in a kind

of technological bliss. Now, as Gibson writes: "Night City wasn't there for its

inhabitants, but as a deliberately unsupervised playground for technology itself" (p.11).

But, if these cities are, as Gibson states, mere playgrounds for technology itself, not everyone has access to the "toys" and the playing field is certainly not a level one.

There is much to be said about the role that technology plays in our lives. We are living, supposedly, in a "post-industrial" society,[2] yet the definition of such a society remains rather mystifying. There is of course a tendency to look at technology as somehow representing a dominant, residual, and emergent culture, one that is forceful, rooted in history, yet changing all the time.[3]

Postindustrialism then, appears to be a label which best sums up the effects of burgeoning technologies on society as a whole. Cyberpunk literature incorporates postindustrialism into its narrative in order to speak loudly about these changing times, and to underline the alterations inevitably occurring to our subjectivity and identity.

Victoria Hollinger addresses these concerns when she writes: "The potential in cyberpunk for undermining concepts like 'subjectivity' and 'identity' derives in part from its production within what has been termed 'the technological imagination,' that is, cyberpunk is hard SF which recognizes the paradigm-shattering role of technology in postindustrial society" (Hollinger, 1991, p.210). This "paradigm-shattering" role that technology plays is evident in many forms in Gibson's work. From the "console cowboys" plying their trade to the highest multinational bidder, to the relationship between humans and technology - a relationship which has led many observers to comment on the body as "meat" - Gibson's vision, and the vision of other "cyberpunk" writers, moves us further and further away from the certainties of our world as we know it. Cyberpunk, as one commentator puts it, "tries *on* the new post-industrial,

cybernetic sensorium in which all the old certainties about self/other, inside/outside, body/world are increasingly decentered and dissolved" (Pfiel, 1990, p.87).

THE LANGUAGE OF CYBERPUNK

Before we return to such issues as cyberpunk and technology, post-industrialism, capitalism, computers, the future, etr., I believe it is essential to examine the language of cyberpunk for its use of metaphors, neologisms, and narrative structure, particularly in Gibson, to create an alternative reality steeped in semiotics. There are numerous signs, or flags in Gibson's writing. For example, his texts are littered with the brandnames of consumer culture which act as recognizable symbols with which the reader can identify. These signs act as indices to the reader's world, yet they are framed in a context which is often unfamiliar, or of the future. Yet, these symbols still form a kind of rhetoric, as much as VR does, in that they provide a connection for the reader to the text, one that might otherwise not be there.

Although there is no rigid formula for cyberpunk writing, many cyberpunk stories, as Landon suggests, are "set in a relatively near post-industrial, multicultural future in which electronic and bio-technology have saturated all forms of experience [and] become an inescapable environment, a technosphere . . ." (Landon, 1987, p.27). This environment sets the stage for cyberpunk's central motif - the relationship between human beings and technology, and the often hyperbolic language used to describe this relationship.

Reading Gibson for the first time can be an extremely disorienting experience.

The language is a pastiche of words, phrases, metaphors, neologisms, thrown together

in true "postmodern" form - old words with new meanings, new words with old

meanings - resulting in, what Bukatman calls, a "new mimesis." What Gibson gives us

is a language "of spectacle and simulation, a language designed to be appropriate to its

era" (Bukatman, 1993, p.11). As an example, take this passage from *Neuromancer*:

> Case's virus had bored a window through the library's
> command ice. He punched himself through and found an
> infinite blue space ranged with color-coded spheres strung
> on a tight grid of pale blue neon. In the nonspace of the
> matrix, the interior of a given data construct possessed
> unlimited subjective dimension; a child's toy calculator,
> accessed through Cases's Sendai, would have presented
> limitless gulfs of nothingness hung with a few basic
> commands. Case began to key the sequence the Finn had
> purchased from a mid-eschelon [sic] sarariman with severe
> drug problems. He began to glide through the spheres as if
> he were on invisible tracks. (p.63)

The very first sentence in this paragraph causes problems for the uninformed. Unless

you know that "ice" here really means ICE (intrusive counter-electronics) - of course

you would then have to know what "intrusive counter-electronics means"! - the rest of

the paragraph makes little or no sense. There is much of this type of language in

Gibson that contributes to the mystique and complexity of cyberpunk, and celebrates the

triumph of scientific/technical language. But how is the reader supposed to decode this

language? Where is the communicative aspect of this language if there is no meaning,

or, if the meaning is embedded in a secret or "transparent" language? O.B. Hardison

addresses just this in *Disappearing Through the Skylight*, when he writes: "What is

language if not a device for communicating meaning? When language is pushed by

various strategies toward transparency, it seems to abandon its capacity to mean in the

normal sense of that term" (Hardison, 1989, p.159). Put another way, the language of

"techies" becomes aesthetic.

The language of cyberpunk seems to go against any conventional discussions

about language, meaning and reality. As Michael Heim posits in *Electric Language*:

> The adult's cultivated understanding of things is based on
> the constant effort to define the boundaries of things
> through language. Language, then, does not describe a
> pregiven, fixed world. Language instead is a world, a
> limited order out of total chaos. The world is continually
> emergent in words; reality is the world we bespeak. . .
> language, or *logos*, is the emergence of identity out of the
> chaos of an infinite matrix of possibilities. (Heim, 1987,
> p.30)

While Heim suggests here that language gives us a "limited order out of total chaos,"

Gibson's language, as quoted above, illustrates chaos describing chaos. What we

imagine as "reality" in our world, has been transformed into an alternative reality, or

Virtual Reality (VR), which manifests itself as "Cyberspace" in Gibson's world. The

cyberpunk landscape, Hollinger writes, "tends to be choked with the debris of both

language and objects; as a sign-system it is overdetermined by a proliferation of surface

detail which emphasizes the 'outside' over the 'inside'" (Hollinger, 1991, p.212). The

'outside' here refers to Gibson's penchant for using Brand names and littering his streets

with the products and by-products (signs of capitalist technology), both human and non-

human, of what has become the 'dance of biz.' There is a shift in this narrative away

from an emphasis on symbolic reality to one of surface reality. This is clearly evident

in Gibson's description of Night City with its "factory domes dominated by the vast

cubes of corporate arcologies," and by day the bars "down Ninsei were shuttered and

featureless, the neon dead, the holograms inert, waiting, under the poisoned silver sky"
(pp.6-7).

This description of Night City invokes imagery reminiscent of earlier filmic

contributions describing multinational supremacy and technology run amok. I am

referring in particular here to "Bladerunner" and "Max Headroom." Both of these

productions featured a multinational corporation which ran its operations isolated from

and above the chaos of the city streets. Perched atop huge office towers left over from

modernism's fascination with chrome and glass, these corporations conducted their

operations never having to dirty themselves on the streets below. From this perspective

life on the streets takes place in the basement of these buildings, a damp and dreary

underground, both dangerous and thrilling at the same time. Much has been written

about the "thrill" and "speed" of cyberpunk, and the ambivalent language which is used

to describe it. The world that Gibson creates challenges the moral, ethical, and

structural components of our relationships not only with each other - which are

inconceivably altered - but with technology as well. As Csicsery-Ronay, Jr. comments:

> In Gibson's world, human beings have nothing left but
> thrill. It is all that power can offer, but it is also - the
> ambivalence again - the only way to create new conditions,
> since old philosophical-moral considerations mean nothing
> in a world where one can plug in another's feelings or a
> personality-memory complex through "simstim" (simulated
> stimulus), assimilate a myriad of power programs through
> "microsofts" plugged directly into "cranial jacks," be
> rebuilt or redesigned with special features or resurrected
> through nerve splicing and elective surgery, or have one's
> consciousness kept intact after physical death entirely
> through a program. (Csicsery-Ronay,Jr., 1991, pp.191-
> 192)

Although some of the above borders on the ghoulish, they are everyday occurrences on the pages of cyberpunk. The "cranial jacks" and the "simstims" are products of a high-tech society with a craving for instant gratification, instant communication, which should not come as a surprise to anyone living as we are in late twentieth century capitalism. Being kept alive after physical death (even though cryogenics has been popularized both on television and in film) is another story. What we are dealing with here is a question of power and the ability to keep that power in the hands of the few, those who have the capital to keep their disembodied spirits alive and continue to rule their vast empires.

There is of course another way to look at the genre of cyberpunk. One of the things that cyberpunk is fascinated with, that it dwells on in careful detail, that Csicsery-Ronay Jr. calls its "ruling deity," is sleaze - "the scummy addiction to thrill that can focus all of a person's imaginative power on a sensation that wipes out all discipline, and which at the same time sells books, attracts movie options, and generates sequels" (Csicsery-Ronay Jr., 1991, p.193). Interestingly enough, the "sleaze" factor also offers clean-cut, middle-class folks who can afford computers and the glossy magazines (like "Mondo 2000" and "Wired") of this habitat - the cyberpunk habitat - the opportunity to play social tourist, like visiting Cuba but staying at Club Med. With these tools at the ready they can demonstrate their "street savvy" through possession and mastering of "subversive" tech lingo, which in fact is sanitized by virtue of its commerciality. This is very similar to the appropriation of "punk" clothing by the middle-class; designer ripped jeans for $125.00 devoid of any original meaning.

Cynicism aside, there is a definite sleaze element to cyberpunk which ties directly into its thrill and speed. It also acts, on many levels, as a substitute for affection, reflection, and care; so there are no families, no green spaces, no relaxation, no crafts, just the chase and acquisition of information, innovations, complicated hierarchies, carried along by a "swift stream" of narrative. In the cyberpunk world: "drugs, 'biz,' metal travelling in cyberspace, orgasms without tenderness, and the constant wearying drive *to do*, which translates into impelled work" (Csicsery-Ronay Jr., 1991, p.192). A byproduct of this manic drive for information and capital accumulation is a shifting identity, what Bukatman calls a "terminal identity," which deals with the problem of the subject in our technological age; more to the point, it deals with the problems of the human body in an age which increasingly has little use for the flesh.

THE CYBERPUNK "BODY"

In *Terminal Identity*, Scott Bukatman identifies the sub-genre of cyberpunk as "terminal identity fictions," a grouping he feels that encompasses "not only the cyberpunk narratives, but also the techno-prophecies of Marshall McLuhan and the cultural analyses of Baudrillard and Haraway.[4] It is a term that describes a coupling of both stylistic *and* thematic approaches to the problem of the subject in the electronic era" (Bukatman, 1993, p.9). There is ample evidence of this coupling in Gibson with his abundance of metaphors linking the organic and the electronic (cranial jacks, razor-blade fingernails, AI's, etc.). And there is much ambivalence about these relationships

as Csicsery-Ronay Jr. points out:

> Cyberpunk is fundamentally ambivalent about the
> breakdown of the distinctions between human and machine,
> between personal consciousness and machine
> consciousness. In almost every significant cyberpunk work,
> the breakdown is initiated from outside, usually by the
> pressures exerted by multinational capitalism's desire for
> something better than the fallible human being. (Csicsery-
> Ronay Jr., 1991, p.191)

Cyberpunk's ties to multinational capitalism and postmodernism will be covered in detail in chapter three, suffice to say here though that for many critics the body has figured in postmodern art and cultural theory as a site of cultural crisis (for example see *Apocalypse Culture* ed. by Adam Parfrey, *Terminal Identity* by Scott Bukatman, and "Cybernetic Deconstructions: Cyberpunk and Postmodernism," by Victoria Hollinger). The politics of the body, as Bukatman points out, "is already vastly more complex than in cyberpunk's fantasies of an inevitably masculine empowerment" (Bukatman, 1993, p.21).

As has been mentioned above, the ambivalence towards the body in cyberpunk literature has been well documented by Csicsery-Ronay Jr. in "Cyberpunk and Neuromanticism." He believes that the past "expansive" SF scene, with its "historical analogies of colonialism and social Darwinism, the power struggles of the old against the new, the ancient against the scientific," has given way to "implosive" SF with its central themes and motifs "based on analogies of the invasion and transformation of the body by alien entities of our own making.[5] Implosive science fiction finds the scene of SF problematic not in imperial adventures among the stars, but in the body-physical/body-social and a drastic ambivalence about the body's traditional - and

terrifyingly uncertain - integrity" (Csicsery-Ronay Jr., 1991, p.188). Nowhere is this

more evident than in Gibson's *Neuromancer* and *Count Zero*.

At the very beginning of *Neuromancer* Gibson introduces the reader to the

protagonist (anti-hero?) Case, a console cowboy who we learn has double-crossed his

former employer and has paid for this with his talent. Gibson writes:

> Strapped to a bed in a Memphis hotel, his talent
> burning out micron by micron, he hallucinated for thirty
> hours.
> The damage was minute, subtle, and utterly
> effective.
> For Case, who'd lived for the bodiless exultation of
> cyberspace, it was the Fall. In the bars he'd frequented as
> a cowboy hotshot, the elite stance involved a certain
> relaxed contempt for the flesh. The body was meat. Case
> fell into the prison of his own flesh. (p.6)

There is more than ambivalence towards the body here, there is "contempt for the

flesh." Case's *raison d'etre* revolves around being able to experience cyberspace (more

on this in chapter two) and leave the baggage of his body behind. The damage to his

nervous system, inflicted upon him by his ex- employer, is tantamount to the Fall. The

body as meat suggests a commodity which is more of a hindrance than an attribute in a

society where communication technologies have all but dissolved our normal

boundaries, and have precipitated an electronic challenge to subject definition. Many

cultural theorists share these concerns for the body, and have used the rhetoric of

superimposition, as Bukatman states, and the "language of science fiction to express the

postmodern crisis of a body that remains central to the operations of advanced

capitalism as *sign*, while it has become entirely superfluous as *object*. The body exists

only as a rhetorical figure: its reality is that of refuse expelled as surplus-matter no

longer necessary for the autonomous function of the technoscape. . .

In cyberpunk science fiction the body finds and occupies a new space; a realm in which

a control over the dataspheres of capitalism is restored" (Bukatman, 1993, p.16).

In *Count Zero* Gibson gives us such a body. Herr Josef Virek, a very wealthy

capitalist and philanthropist, lives in a "vat" kept alive at great expense in order to

oversee his vast empire. Virek seems to long for the dignity of a "real" death, a death

of the flesh, yet in a way he has transcended his own mortality, living not only in the

technoscape, but as part of its technological program. Gibson writes:

> "Forgive me," she found herself saying, to her
> horror, "but I understand you to say that you live in a - a
> vat?"
> "Yes, Marly. And from that rather terminal
> perspective, I should advise you to strive to live hourly in
> your own flesh. Not in the past, if you understand me. I
> speak as one who can no longer tolerate that simple state,
> the cells of my body having opted for the quixotic pursuit
> of individual careers. I imagine that a more fortunate man,
> or a poorer one would have been allowed to die at last, or
> be coded at the core of some bit of hardware. But I seem
> constrained by a byzantine net of circumstance that
> requires, I understand, something like a tenth of my annual
> income. Making me, I suppose, the world's most expensive
> invalid. I was touched, Marly, at your affairs of the heart.
> I envy you the ordered flesh from which they unfold."
> (p.16)

This passage has a nostalgic tone to it as Herr Virek laments his loss of the

physical as he envies Marly's "flesh," and, it would appear, her capacity for feeling and

loving. Gibson is not merely commenting on the disappearance of the body here, but as

well the potential that exists in a society when vast amounts of capital are coupled with

technological ability. A society, where the gaps between human and machine have been

bridged to the point of transmutation. Virek "exists" as a commodified entity, a kind of packaged spirit with much power but little presence as a subject, at least as what we conceive "presence" to be. As Bukatman comments: "In the fantasies of technological symbiosis that cyberpunk presents, the subject's control is actually enhanced by its disappearance into the imploded spaces of electronic technology. The dissolution of the body and its replacement by its own imploded simulacrum, is repeatedly posited as *empowering*" (Bukatman, 1993, p.21). The questions remain though: empowering to whom and empowering for what?

CYBERPUNK, TECHNOLOGY, CAPITAL

The question of empowerment raises the ire of many, like Joan Gordon, who believe that, while cyberpunk may have its liberating qualities, it still remains essentially a boy's club.[6] At its worst, I suppose, cyberpunk reminds me of an inscription on a t-shirt I once saw: "He who has the most toys when he dies, wins"; although, it's not immediately apparent what the winner gets. While it is true that there are strong female characters in Gibson's writing (Molly, in *Neuromancer*; Marly, in *Count Zero*; and even the child Kumiko in *Mona Lisa Overdrive*), these are the stories of man's continuing relationship with capital and technology, a stage for the "dance of biz" with the men leading. Theirs is a world of economic dominance and political influence that is responsible for multinational capitalism, a system that is highly dependent upon rapid technological advancements that will allow them to compete for global resources and empire expansion. As Larry McCaffery points out in his

introduction to *Storming The Reality Studio*:

> Because competition among the multinationals is so intense
> and because success within this competition depends so
> much upon gathering highly specialized marketing
> information (including political and social information for
> insurance and investment purposes, etc.), the development
> of highly sophisticated methods of information gathering
> and data storage has been a key priority in technological
> research and production - so much so that one can say now
> that the key "global resource" is the *information itself*
> rather than the oil, farm goods, or other resources usually
> associated with capitalist market systems. (McCaffery,
> 1991, pp.3-4)

Cyberpunk literature (Gibson et.al.) has zeroed in on the importance of data and

information flow. In Gibson's work (*Neuromancer* in particular) cyberspace becomes

the final frontier for multinational control. Access to the financial, political, and

telecommunications institutions of the world means only one thing, power. This

scenario rings some familiar bells. It was Harold Innis, writing in the early 50's, who

first started talking about "monopolies of knowledge."[7] And later still, picking up

where Innis left off, Marshall McLuhan penned "the medium *is* the message," and a

whole generation scrambled to prove him wrong, to prove that content was more

important.[8] We seem to have come full circle.

I do not wish to start here a discussion over form and content, I merely want to

emphasize the importance of information, information systems, and lest we forget them,

the audiences who consume them. McLuhan arguably came the closest to predicting the

effects of electronic media. Human desires have been continuously bombarded,

stimulated, confused, and ultimately numbed by a non-stop flow of images and sounds

coming our way daily via the electronic media. However, as Howard Rheingold states:

"McLuhan didn't tell us that the global village would be experienced primarily by most people as an overdose of beautifully crafted advertisements based largely on sexual innuendo, for the products of multinational corporations" (Rheingold, 1991, p.350). Rheingold believes that telepresence technology (VR) will somehow empower those that have been under the control of multinational capitalism. Contradicting himself somewhat, Rheingold states further that the "[e]lectronic media have been used thus far by a few to manipulate the desires of many, resulting in unprecedented financial profit. It is possible that telepresence technology, if linked with an inherently distributed network system such as the telecommunications infrastructure, will give this power to many, rather than reserving it to a few" (Rheingold, 1991, p.350).

So, here again we come to the question of empowerment. Rheingold waffles on whether or not this empowerment will ever materialize, or if it's a good thing at all. But, he also assumes that unlike the telegraph VR technology will be revolutionary, and somehow for a good cause. When Donna Haraway, in "A Manifesto for Cyborgs . . ." writes that the new communications technologies are "fundamental to the eradication of "public life" for everyone," and that this eradication "facilitates the mushrooming of a permanent high-tech military establishment at the cultural and economic expense of most people, especially women," we cannot ignore this overt manipulation of the monopolies of knowledge (Haraway, 1985, p.88). What needs to be examined further here are the links between technology, capital, and consumerism.

To do this we need to examine the changing economic and production models associated with mass consumption and the labour-intensive industries of the past, which

usually fit under the label of Fordism.[9] In *The Condition Of Postmodernity*, David

Harvey argues that the "economies of scale sought under Fordist mass production have,

it seems, been countered by an increasing capacity to manufacture a variety of goods

cheaply in small batches. Economies of scope have beaten out economies of scale."

Harvey goes on to say that the relatively stable aesthetic of Fordist modernism "has

given way to all the ferment, instability, and fleeting qualities of a postmodernist

aesthetic that celebrates difference, ephemerality, spectacle, fashion, and the

commodification of cultural forms" (Harvey, 1989, pp.155-156). While there are other

factors at work here, technology and its pervasive dominance over all facets of our lives

is largely responsible for this "ferment" and "instability." As Fredric Jameson has said:

"The technology of contemporary society is

. . .mesmerizing and fascinating, not so much in its own right, but because it seems to

offer some privileged representational shorthand for grasping a network of power and

control even more difficult for our minds and imaginations to grasp - namely the whole

new decentered global network of the third stage of capital itself" (Jameson, 1991,

pp.37-38).

This notion of power, capital, and multinational dominance which is beyond the

scope of our collective imagination, as Jameson suggests, is very much a part of the

cyberpunk motif. As Gibson writes in *Neuromancer*:

> Power, in Case's world, meant corporate power. The
> zaibatsus, the multinationals that shaped the course of
> human history, had transcended old barriers. Viewed as
> organisms, they had attained a kind of immortality. You
> couldn't kill a zaibatsu by assassinating a dozen key
> executives; there were others waiting to step up the ladder,

> assume the vacated position, access the vast banks of
> corporate memory. . .Case had always taken it for granted
> that the real bosses, the kingpins in a given industry, would
> be both more and less than *people*. . .He'd always
> imagined it as a gradual and willing accommodation of the
> machine, the system, the parent organism. It was the root
> of street cool, too, the knowing posture that implied
> connection, invisible lines up to hidden levels of influence.
> (p.203)

The suggestion here that you can't kill a multinational is a profound one, given the power and control that they exert. Going back to an earlier quote from *Neuromancer* (p.18 of this text) which refers to a *virus*, it would seem that this is the only way of infiltrating the immortal "organisms" of which Gibson writes. So, the technology that drives the "machine," the "system" is part of the organism, part of humanity, in other words, an extension of the sensorium.

Again there is the echo of McLuhan and the "extensions of man," reiterated by Rybczynski and his discussion of the "prosthetic god." This theme is also discussed by Haraway when she says that there is no "fundamental, ontological separation in our formal knowledge of machine and organism, of technical and organic . . .one consequence is that our sense of connection to our tools is heightened . . .The machine is not an *it* to be animated, worshipped and dominated. The machine is us, our processes, an aspect of our embodiment" (Haraway, 1985, p.97,99). There has long been a widespread fear that technology is somehow passing us by (by-passing us?) and that we have become mere "software" for the multinational's vast mainframe. The technological dreams and nightmares envisioned by previous generations of SF artists are already in place, and the current crop of writers, namely the cyberpunks, are

suggesting that we need to grab hold of this technology and use it for our own purposes (there is the idea of empowerment again) to create our own niche in a technological world.

But there are immense problems with this belief in technological supremacy and personal empowerment. Consider, for example, the question of technology's relationship to the body. Victoria Hollinger reminds us that human bodies are absorbed, to some degree, into this "rhetorical conflation of organism and machine," or, put another way, identifying a fundamental role of language in ontology. The human world, Hollinger writes, "replicates its own mechanical systems and the border between the organic and the artificial threatens to blur beyond recuperation." Therefore, we can read cyberpunk as an "analysis of the postmodern *identification* of human and machine" (Hollinger, 1991, p.205). Cyberspace, VR, or, as Gibson refers to it, the "consensual hallucination that is the matrix," represents the site, the frontier for this connection between the organic (human) and the inorganic (technical). As Hollinger states: "This emphasis on the potential interconnections between the human and the technological, many of which are already gleaming in the eyes of research scientists, is perhaps the central "generic" feature of cyberpunk. Its evocation of popular/street culture and its valorization of the socially marginalized, that is, its "punk" sensibility, have also been recognized as important defining characteristics" (Hollinger, 1991, p.205).

Cyberpunk's popularity, the reason people are still writing about it long after its writers have gone onto other things, is its capacity for presenting a recognizable future, one that freely admits to our interconnections with technology. One of the central

assumptions of cyberpunk is that life, like film, video, and computer data, can be "edited as to become 'post-human,' radically reprogrammed through artificial evolution or redesigned by technology . . ." (Landon, 1987, p.28). The very idea that through "simstim," simulated stimulation, the whole human sensorium can be technologically "outered," that our dreams can be programmed, (a concept clearly illustrated by the film "Total Recall," that was based on a Phillip K. Dick short story, "We Can Dream It For You Wholesale"), reinforces this link to technology. As John Shirley (punk-rocker turned science fiction writer) states: "Cyberpunk . . .looks to that immediate probable future; it examines the human consequences of our new relationship with technology, with media, with our new reality; it explores the good and the bad, and the places where they can't be distinguished" (Shirley, 1991, p.58).

Cyberpunk's characters possess a global worldview at the same time as they are identified with an underground culture with worldwide manifestations. If anything, cyberpunk is anti-apocalyptic in its view of the near-future, an approach to history that discourages "resolution-through-apocalypse." There is a "texture" to cyberpunk that transcends the "old" SF writer's penchant for extrapolation. The cyberpunk writer is not disturbed by inconvenient reality (Brin, 1988, p.25). Perhaps this explains why Gibson's images of "cyberspace," his beautiful metaphors which bring the reader that much closer to understanding where their money *really is*, have become synonymous with virtual reality and those people who are trying desperately to create a virtual world. The most striking spatial construct in *Neuromancer*, Victoria Hollinger suggests, is not the city-space of the Sprawl, or the many artificial environments like

Freeside, but "cyberspace, the virtual reality that exists in simulated splendor on the far side of the computer screen - the real centre of technological activity in Gibson's fictional world" (Hollinger, 1991, p.207). It is intriguing that of all the aspects of Gibson's books, the technology of cyberspace has been seized as the most important, the human dramas being relegated to history. For many, cyberspace has been integrated so successfully into the daily texture of our lives that these experiences often seem more "real" to us than the presumably more "natural" aspects of our lives. This phenomenon would appear to bring new meaning to the advertising pitch: "Is it live, or is it Memorex?" Larry McCaffery feels that "these reproduced and simulated realities, whose objective forms serve as a disguise for their subjective content, have begun subtly to actually *displace* the "real" rendering it superfluous" (McCaffery, 1991, p.6). With this in mind it is now time for an in-depth look at cyberspace.

Notes

1. All subsequent references to these texts will appear in the body of the thesis.

2. The notion of a "post industrial" society here comes from Jameson's (1991) discussion on how "postmodernism" is at one with the definitive "end of ideologies," as well as the concept of a postindustrial society, that were proposed by "conservative ideologues of the fifties" like Daniel Bell and S.M. Lipset.

3. See Raymond Williams (1977) *Marxism And Literature*.

4. For Marshall McLuhan (1951) see: *The Mechanical Bride, and Understanding Media: The Extensions of Man*. For Jean Baudrillard (1983a) see: "The Ecstasy of Communication," in Hal Foster's *The Anti-Aesthetic*. Also, see Baudrillard's (1983b, 1981) *Simulations*, and "Requiem for the Media," in *For a Critique of the Political Economy of the Sign*. For Donna Haraway (1985) see:"A Cyborg Manifesto: Science, Technology and Socialist Feminism in the 1980's."

5. For a more detailed discussion of the metaphor of implosion see Jean Baudrillard (1987) and Arthur Kroker (1986) and their discussions on the crisis of representation and politics in the postmodern condition.

6. See Joan Gordon's (1991) "Yin and Yang Duke It Out," in *Storming The Reality Studio*.

7. See Harold A. Innis, (1950, 1951) *Empire and Communication*, and *The Bias of Communication*.

8. See Marshall McLuhan, (1964) *Understanding Media: The Extensions of Man*.

9. For a detailed discussion of Fordism and cyberpunk see Pam Rosenthal's (1991) "Jacked In: Fordism, Cyberpunk, Marxism."

Chapter 2

THE CYBERSPACE FRONTIER

Learning from the existing landscape is a way of being revolutionary for an architect. Not the obvious way, which is to tear down Paris and begin again, as Le Corbusier suggested in the 1920's, but another, more tolerant way; that is, to question how we look at things. Robert Venturi et al.

CYBERSPACE: SOME DEFINITIONS.

It was John Perry Barlow, lyricist for the Grateful Dead, who was the first commentator to adopt Gibson's science-fictional term "cyberspace" as a synonym for the present-day link between the computer and telecommunications networks. As Bruce Sterling points out in *The Hacker Crackdown*, "Barlow was insistent that cyberspace should be regarded as a qualitatively new world, a 'frontier.' According to Barlow, the world of electronic communications, now made visible through the computer screen, could no longer be usefully regarded as just a tangle of high-tech wiring. Instead, it had become a *place*, cyberspace, which demanded a new set of metaphors, a new set of rules and behaviors" (Sterling, 1992, p.247).

As the epigram from *Learning From Las Vegas* suggests, there is no need to tear down our existing notions of space to understand cyberspace; Scott Bukatman confirms this when he says that we can learn about Gibson's cyberspace by learning about Las Vegas, by looking at our existing world from another level: "cyberspace only represents an extension of the urban sector located at the intersection of postmodernism and science fiction" (Bukatman, 1993, p.121). Before we continue through this intersection

a few definitions are needed in order to place cyberspace within its political,

economical, and cultural framework.

In *Cyberspace*, Michael Benedikt offers the following definition:

> Cyberspace is a globally networked computer-sustained,
> computer accessed, and computer-generated,
> multidimensional, artificial, or "virtual" reality. In this
> reality, to which every computer is a window, seen or
> heard objects are neither physical nor, necessarily,
> representations of physical objects but are, rather, in form,
> character and action, made up of data, of pure information.
> This information derives in part from the operations of the
> natural, physical world, but for the most part it derives
> from the immense traffic of information that constitute
> human enterprise in science, art, business, and culture.
> (Benedikt, 1991, pp.122-3)

In this definition Benedikt points to the global trafficking of data, "pure information," as

the nexus of a computer-generated cyberspace. The suggestion here is that cyberspace

is the "space" between two computers, the space where information flows after being

transmitted from one computer to another. For example: An e-mail (electronic mail)

message from one person to another begins as a typed message, in English (or any other

language), which is then "downloaded" in computer language, via a modem and regular

telephone lines to the addressee's computer, and later accessed, back into English, to be

read and responded to if necessary. This message spends an undetermined amount of

time in cyberspace before it turns up on the receiver's computer screen.

We can only imagine just how much information - the information of science,

art, business and culture as Bukatman states - spends its time in the seemingly nonspace

of cyberspace. Countless numbers of coded messages making their way daily across

cities, countries and continents, creating an alternate world, one of "pure" information.

Given this creation, the design of cyberspace, as Benedikt posits, can be looked upon as

the "design of another life-world, a parallel universe, offering the intoxicating prospect

of actually fulfilling - with a technology very nearly achieved - a dream thousands of

years old; the dream of transcending the physical world, fully alive, at will, to dwell in

some Beyond - to be empowered or enlightened there, alone or with others, and to

return" (Benedikt, 1992, p.131). This dream is brought to life by Gibson in

Neuromancer:

> "Cyberspace. A consensual hallucination experienced daily
> by billions of legitimate operators, in every nation, by
> children being taught mathematical concepts. . .A graphic
> representation of data abstracted from the banks of every
> computer in the human system. Unthinkable complexity.
> Lines of light ranged in the nonspace of the mind, clusters
> and constellations of data. Like city lights receding. . ."
> (p.51)

It is perhaps not surprising that science fiction literature would be at the

forefront of this parallel universe. Although Cyberpunk's inclusion as a genre of

science fiction is debatable, its representations of a new urban landscape, one dominated

by sophisticated technology, underground economies, and a free-flow of information, fit

the general premise of science fiction: the future, albeit a not-to-distant one in

Cyberpunk's case. In *Terminal Identity*, Scott Bukatman discusses these new urban

spaces, their connection to the flow of information, and Gibson's contribution to

understanding this new world, and contends that science fiction is explicitly involved in

a "cognitive and phenomenological 'writing' of new urban spaces." Bukatman believes,

for example, that the "new 'nonplace urban realm' is invisible through its existence in

and through the fields of information circulation," but that *Neuromancer* renders that

"information field tangible, legible, and spatial. Cyberspace is precisely a *nonspace realm*, in Webber's sense of the term" (Bukatman, 1993, p.123).[1]

Bukatman's description of a "cognitive" writing of new urban spaces brings to mind Fredric Jameson's discussion of Kevin Lynch's classic work *The Image of the City* (1960). Lynch's book deals with people who are unable to "map," in their own minds, positions for themselves in the alienated city, and thus resort to reconstructing an "ensemble" which represents for them the familiar. Jameson refers to this reconstruction as a "cognitive mapping" which allows for a narrower framework of daily life in the physical city, enabling a "situational representation on the part of the individual subject to the vaster and properly unrepresentable totality which is the ensemble of society's structure as a whole" (Jameson, 1991, p.51). Jameson believes that an aesthetic of cognitive mapping - - one that seeks to "endow the individual subject with some new heightened sense of its place in the global system," that is, within the world space of multinational capital - - will ultimately have to come up with new forms of representation for both the individual and the collective so that they may be able to regain a capacity to act and struggle in this new world space. The political form of postmodernism, Jameson suggests, "will have as its vocation the invention and projection of a global cognitive mapping, on a social as well as a spatial scale" (Jameson, 1991, p.54).

If the new urban spaces created by multinational capital pose such problems as representation for the individual and the collective, what problems are on the horizon for them when they are faced with the nonspace of cyberspace and a virtual reality

landscape devoid of physicality and nurtured by a multinational control of information? How will we now handle issues of representation when the very language of cyberspace suggests a problem with old ways of knowing? What happens to the "city" when it is bypassed by the free-flow of information which has its roots in electronic transmission and not personal exchange? Scott Bukatman answers some of these questions when he suggests that cyberspace hyperbolizes the space of the city, "projecting the metroscape into an exaggerated representation that accentuates its bodiless vertigo," but, at the same time, "permits the existence of a powerful and controlling gaze. . .Cyberspace becomes the instantiation of a truly postmodern urban language in which the density and proximity of the central, inner, city becomes the compensatory analogy for the spatially dispersed matrices of information circulation and overload" (Bukatman, 1993, pp.150-151). What this means is that cyberspace provides the individual with a parallel universe, one which is both empowering and restrictive at the same time.

Another way of looking at the duality of this situation is to consider cyberspace as an extension of our capacity, even our willingness, to exist in two universes at once. Michael Benedikt elaborates here by stating that "cyberspace can be seen as an extension, some might say an inevitable extension, of our age-old capacity and need to dwell in fiction, to dwell empowered or enlightened on other, mythic planes, if only periodically, as well as this earthly one" (Benedikt, 1991, p.6). We are reminded here of McLuhan's *Understanding Media: The Extensions of Man*, because cyberspace represents a new medium of communication which supplants both machine and automation technologies promoting a direct cerebral link, where one operates on a kind

of even plane with the computer (machine). To take this one step further we may soon be able to say that we are dealing with "thinking" machines, in the same way that Alan Turing suggested back in the 50's.[2] In fact, Gibson makes several references to Turing: The "Turing Registry," "Turing Heat," and "Turing Cops," in *Neuromancer*. O.B. Hardison picks up on this theme as well when he cites Turing as saying: "I believe that at the end of the [twentieth] century, the use of words and general educated opinion will be altered so much that one will be able to speak of machines thinking without expecting to be contradicted." Turing, Hardison writes, is "talking about cultural conditions, which most emphatically exist and are describable. He is practicing, you might say, a kind of 'future anthropology'" (Hardison, 1989, p.319).

This notion of a 'future anthropology' suggests that many "futurists" (Gibson could be classified as one) use an anthropological perspective in their desire to understand their own culture. In their writing they engage in a study of cultural patterns and how these patterns change over time, in order to understand the diversity of culture and the different ways of doing things. This perspective is useful for examining cyberspace's ties to the history of communications media, and its seeming loop back in history to a preliterate age. As Michael Benedikt states: "The broad historical movement from a universal, preliterate actuality of *physical doing*, to an education-stratified, literate reality of *symbolic doing* loops back, we find. With movies, television, multimedia computing, and now VR, it loops back to the beginning with the promise of a *post*literate era, if such can be said; the promise, that is, of 'post-symbolic communication'" (Benedikt, 1991, p.12). In an era such as this, language-bound

descriptions and semantic games will no longer be needed in order to communicate historical events, personal viewpoints, or technical information. Instead, as Benedikt suggests, "direct - if 'virtual' - demonstration and interactive experience of the 'original' material will prevail, or at least be a universal possibility" (Benedikt, 1991, p.12).

"JACKING-IN" WITH GIBSON.

The notion of "interactive experience" is cyberspace's calling-card. While the linking of computers to various communication technologies has enabled us to exchange information on a completely different level than before possible, it has also sparked the imagination of many who feel that we can go even further, taking interactiveness to new heights. But, how did we get to this stage, and what function does "cyberspace" have in all this?

For Michael Heim, cyberspace entities "belong to a broad cultural phenomenon of the last third of the twentieth century: the phenomenon of computerization." Heim argues that cyberspace qualifies as a phenomenon because it has been able to "arrest" and hold our attention long enough for our shared language to articulate its presence, giving it an identity as it moves through history. A writer like William Gibson, Heim suggests, "helps us grasp what is phenomenal in current culture because he captures the forward movement of our attention and shows us the future as it projects its claim back onto our present. Of all writers, Gibson most clearly reveals the intrinsic allure of computerized entities, and his books, *Neuromancer, Count Zero,* and *Mona Lisa Overdrive,* point to the near-future, phenomenal reality of cyberspace" (Heim, 1991, p.61).

A good example of these so-called "computerized entities" appears in *Mona Lisa Overdrive*. Angie, one of the protagonists in the novel, is talking to a computer program called "continuity," asking questions about the folklore of console cowboys. Gibson writes:

>"Continuity."
>"Hello, Angie."
>"The folklore of console jockeys, Continuity. What do you know about that?". . .
>"What would you like to know Angie?"
>"'When It Changed' . . ."
>"The mythform is usually encountered in one of two modes. One mode assumes that the cyberspace matrix is inhabited, or perhaps visited, by entities whose characteristics correspond with the primary mythform of a 'hidden people.' The other involves assumptions of omniscience, omnipotence, and incomprehensibility on the part of the matrix itself."
>"That the matrix is God?"
>"In a manner of speaking, although it would be more accurate, in terms of the mythform, to say that the matrix *has* a God, since this being's omniscience and omnipotence are assumed to be limited to the matrix."
>"If it has limits, it isn't omnipotent."
>"Exactly. Notice that the mythform doesn't credit the being with immortality, as would ordinarily be the case in belief systems positing a supreme being, at least in terms of your particular culture. Cyberspace exists, insofar as it can be said to exist, by virtue of human agency."
>"Like you."
>"Yes." (p.129)

In this passage Gibson explains that cyberspace is something within the control of humankind because the matrix has its limits. These limits are in fact part of the structure of fiction itself, in that they are presenting an alternative reality which is, to some extent, make-believe. Bukatman explains this best when he discusses the reason for the scarcity of virtual reality fictions. He states: "Perhaps an explanation for the

relative paucity of virtual reality fictions lies in the fact that narrative *already* functions to construct an enveloping simulated existence - narrative *is* a virtual reality . . .virtual reality is thus a simulation whose function is to make the real world seem *more real*" (Bukatman, 1993, p.194). Although this would seem to plunge us into the real/"real" debate further than we would perhaps like, it has its purpose. What we have with Gibson's novels (as well as others) are works of fiction. In these works there is the implication, as with all good fiction, that certain things are to be perceived as real. In these fictions there is a *fiction* which posits that there is another reality of the world - this can be seen in the passage above as the two fictional characters, one "real" (in this case human), and the other a machine discuss the existence of cyberspace. This reality of the world brings to mind the notion of the parallel universe (see page 40) which Benedikt describes. It is perhaps our willingness to *believe* in a cyberspace which makes it so believable!

The real/"real" debate, although not a new one, is of particular interest to virtual reality fictions. One of the key factors in the ongoing research into creating a "virtual" experience, is the determination to create something as life-like as possible - in effect, something more real than reality. This can only be possible if some of our normal sensory perceptions can be satisfied; for instance: touching, smelling, hearing. Virtual reality succeeds, as much as it can succeed, only if our sensory perceptions are fooled into thinking that what we are in fact experiencing is real, and, in effect, it is real, insofar as the technology producing the effects is real.

This "hyperreality" goes a long way in explaining what Gibson is introducing in

Mona Lisa Overdrive with the computer program "continuity" and its rationale (as far as computers can be rational) of the matrix.[3] After all, the matrix simply means something within which something else originates or develops - in this case it is cyberspace. And, what is cyberspace, really? According to Bukatman, among others, cyberspace is a "vast, geometric, limitless field bisected by vector lines converging somewhere in infinity, permeated by the data systems of the world's corporations. Cyberspace is the new ground inscribed by the implosive forces of blip culture" . . .(Bukatman, 1993, p.119). In other words, cyberspace is a constructed reality encompassing the world's data banks and patterned in the image of "blip culture." The implications here are that while nothing *new* is being created, in the true sense of the word, perhaps what all the fuss is about has something to do with an alternative way of dealing with a technology, or, technology in general, that seems to be challenging our existing concept of reality. But, there are other implications which need to be considered here in the real/"real" debate.

The reason that Gibson is getting so much attention is that his powerful visions have been co-opted by some very powerful people. As David Tomas writes in *Cyberspace*, Gibson's vision is beginning to "influence the way virtual reality and cyberspace researchers are structuring their research agendas and problematics" (Tomas, 1992, p.46). However, Tomas warns that this research will remain "stillborn" if it is engineered to follow Gibson's dystopian vision based on a "virtual world of contestatory economic activity." Instead, Tomas suggests that we need to counter this vision by "actively and strategically seek[ing] alternative spatial and creative logics, social and

cultural configurations. If such creative flexibility is critically foregrounded in current research agendas, cyberspace will indeed become a site of considerable cultural promise, and a locale for a new postorganic anthropology" (Tomas, 1992, p.46).

What Thomas is suggesting is that cyberspace may one day lead us to a "postorganic" world, or, to put it another way, a world which is no longer living. Just to reassure the reader, we have not gotten to that point yet. Research in and around cyberspace is still in the "game" phase, but as we have seen with numerous technological innovations, that is where they usually begin. Games, or "simulations" may seem benign to the casual observer, but many more serious projects (guidance systems for one) may have cut their teeth, first as a game. The significance of this is made crystal clear in a novel by Orson Scott Card. Although Card is not known as a cyberpunk author *per se*, he has written numerous sci-fi novels, and of particular interest here is the first book of a trilogy: *Ender's Game*. The storyline in the novel is that Earth has been twice attacked, and the human species almost destroyed. To make sure that the humans are victorious the next time around, the government has instituted a plan to breed military geniuses, and then train them in the arts of warfare. Ender Wiggin is a genius among geniuses and quickly moves up the ladder as a commander, as he and his teammates play an assortment of elaborate games designed to teach the young *pilots* strategic maneuvers to combat the enemy, in this case a species known as the *Buggers*.

Much of their training comes via simulators that re-enact battles from the previous invasions, as they try and hone their skills and improve on their strategies, all

the while preparing for a "real" confrontation with the enemy. In their penultimate training run they are successful in wiping-out the whole *Bugger* race, and are seemingly poised to repeat this in real life. What they are told upon completion of their penultimate training run is that it in fact was the "real" thing. The government had made it seem that it was a simulation because they were concerned that the human species would not be able to partake in a mission designed to wipe out a whole species. All the training battles were actually the real thing, and Ender, the leader of the fleet, did not know that he was partaking in xenocide. What makes this example of "game-warfare" even more chilling, is that in the second novel of the trilogy, *Speaker For The Dead*, we learn that the *Buggers* were not trying to be hostile towards earth, but that it was a problem of communication that caused the wars and the subsequent xenocide in the first place.

The purpose of this example is to illustrate the potential power of "games," but it has done much more than that. *Ender's Game* provides us with a message about the power of technology and the dangers of miss-communication. On one level it is a war story, and on another level it is a story about human capacity and technological will. Is this what Tomas means by a "postorganic anthropology?" Card presents Ender and his crew as humans, as part of the species on Earth, but what tends to be forgotten by the end of the novel is that they have been genetically altered, bred as military geniuses, and they have devices implanted in their bodies which monitor their behaviour from birth. Although the characters in Card's work do not "function" in cyberspace, as they do in Gibson's novels, there are some comparisons that can be made. In its most

extreme case the technology of cyberspace functions as a kind of permanent prosthesis

or hardwired interface. The same could be said for the characters in *Ender's Game*,

who are technologically linked to their leader in the simulation games. Jacking into

cyberspace, according to Tomas, "involves a passage from the everyday space and finite

time of the organically human or postorganic [there's that word again] hardware-based

cyborg to a digital - - as opposed to an analogical - - space and time that is both

transorganic and cyberphysically collective" (Tomas, 1992, p.40). Once again, as in

the first chapter on cyberpunk, we are compelled to discuss the role of the "body," this

time in cyberspace.

"CYBERSUBJECT": THE BODY IN CYBERSPACE.

There is one aspect of the cyberspace/virtual reality discussion that most

commentators seem to agree on: Our relationship with our bodies, that is our physical

bodies, will be fundamentally altered as we attempt to exist in this "other" world.

Also, these same commentators believe that our concepts of space and time will have to

change in order to accommodate these new perceptions of the physical self. As Scott

Bukatman states:

> Virtual reality significantly extends the sensory address of
> existent media to provide an alternate and manipulable
> space . . .To be installed in such an apparatus would be to
> exist on two planes at once: While one's objective body
> would remain in the real world, one's *phenomenological
> body* would be projected into terminal reality. In an
> ecstatic exaggeration of Merleau-Ponty's phenomenological
> model, world and body comprise a continually modifying
> feedback loop, producing a terminal identity without the
> terminal - a *cybersubject*. (Bukatman, 1993, p.187)

Merleau-Ponty's phenomenological model is quite appropriate for describing the body in cyberspace because the basic principle of the model is that the role of *sense-data* lies in the form of the object as perceived by the individual, not in the object itself, nor in the material descriptions, locations, or identifications of the object that follows the rules of physical science (Bullock, 1988, p.645).[4] In other words, out with physical science and in with a new way of perceiving self, based on new experiences and our existence in an alternate reality.

Cyberspace, however, is not just about providing new experiences. Eric Gullichsen and Randal Walser suggest that

> cyberspace, more than any mechanism yet invented, will change what humans perceive themselves to be, at a very fundamental and personal level. In cyberspace there is no need to move about in a body like the one you possess in physical reality. You may feel more comfortable, at first, with a body like your "own" but as you conduct more of your life and affairs in cyberspace your conditioned notion of a unique and immutable body will give way to a far more liberated notion of "body" as something quite disposable and, generally, limiting. (Rheingold, 1991, p.191)

Of course, the ability to radically change one's own body-image, compellingly, to change who we "really" are, is bound to have a profound psychological effect on just who we consider ourselves to be.

This identity crisis is playfully explored in Neal Stephenson's *Snow Crash*. The characters in this novel commune in cyberspace as *avatars*, which they create themselves and are as elaborate as their respective *hacking* skills will allow. The central character, Hiro Protagonist, is a pizza delivery boy (for Cosa Nostra Pizza!) in

the "real" world, and a champion samurai swordsman in cyberspace. His sword fights are legendary, and the other avatars that he has either maimed or killed must recreate their images as different avatars before they are permitted back into cyberspace. Unlike Gibson's characters whose entrance into cyberspace is usually connected to the exchange, legal or otherwise, of data, information and commerce, Stephenson's characters seem to be escaping the "real" world to live-out some kind of fantasy. What Gibson's and Stephenson's characters have in common is that they disembody themselves, and this disembodiment has profound implications for our understanding of cyberspace.

Scott Bukatman, Allucquere Rosanne Stone, and Miriyam Glazer have all commented on cyberspace/virtual reality and the notion of disembodiment, although from rather different perspectives. Bukatman's concern is with ontological and epistemological issues such as the nature of the human, the real experience, sensation, cognition, identity and gender, and how these "are all placed, if not under erasure, then certainly in question around the discursive object of virtual reality and the postulated existence of perfect, simulated environments. Virtual reality has become the very embodiment of postmodern *disembodiment*" (Bukatman, 1993, p. 188).

Allucquere Rosanne Stone's vision of disembodiment comes from her reading of Gibson and how the programming of computers involves the constant creation, interpretation, and reinterpretation of languages. The computer program is a discursive space with a set of variables and operators which are assigned names by the programmer. Penetration into this space is in effect to incorporate the surfaces that are

cyberspace as one's own. As Stone states: "[T]o enter cyberspace is to physically *put on* cyberspace. To become the cyborg, to put on the seductive and dangerous cybernetic space like a garment, is to put on the *female*. Thus cyberspace both *dis*embodies . . .but also *re*embodies . . .in the cyborg character of the console cowboy" (Stone, 1991, p.109). For Stone this disembodiment represents the collapse of a "hallucinatory space" onto the physicality of the console cowboy so that his body is both reconceived and refigured, constituting the seductive quality of, what Stone calls, the "*cybernetic act.*"

Miriyam Glazer views disembodiment as the powerful experience of transferring data from the computers of the human system. To be transported, Glazer writes, "via a 'deck' or 'console' into cyberspace is to experience one's disembodied consciousness entering humanity's 'extended nervous system,' now reduced to an 'electronic consensus-hallucination' that represents - in brilliantly lit, colored, mobile graphics - not what may be brought into being by the journeying into it, but rather what already is: 'data abstracted from the banks of every computer in the human system" (Glazer, 1989, p.161).

Although Glazer's interpretation seems closest to Gibson's use of cyberspace, all three have touched on the inherent problems in the presentation and representation of the body in cyberspace. Glazer's description of "colored lights" and "mobile data" are certainly apparent in Gibson's work, as is the notion of disembodiment. For example, the following passage from *Neuromancer* captures the essence of a detached (but, ironically, at the same time attached to his computer deck) console cowboy's trip

through cyberspace. Gibson writes:

> He jacked in and triggered his program.
> "Mainline," breathed the link man, his voice the only
> sound as Case plunged through the glowing strata of
> Sense/Net ice. Good. Check Molly. He hit the simstim and
> flipped into her sensorium . . .
> He flipped back. His program had reached the fifth
> gate. He watched as his icebraker strobed and shifted in
> front of him, only faintly aware of his hands playing across
> the deck, making minor adjustments. Translucent planes of
> color shuffled like a trick deck. Take a card, he thought,
> any card.
> The gate blurred past. He laughed. The Sense/Net
> ice had accepted his entry as a routine transfer from the
> consortium's Los Angeles complex. He was inside. Behind
> him, viral sub-programs peeled off, meshing with the
> gate's code fabric, ready to deflect the real Los Angeles
> data when it arrived. (p.61)

Through his cyberspace deck, Case has infiltrated a large consortium with the help of a computer program which has enabled him to bypass, or avoid the protection measures (ICE) installed by the company. Cases's body, as Stone suggests, is reconceived and refigured into the act of transmitting and receiving data from some company's main computer. Although he is aware of his hands moving over the keyboard (recent advances in voice-activated computers will soon make even these actions obsolete), we are given a picture of a disembodied mind performing complex functions within the matrix of a computer. Gibson's own description of his anti-hero, Case, gives us this much: Case, Gibson writes, "operated on an almost permanent adrenaline high, a byproduct of youth and proficiency, jacked into a custom cyberspace deck that projected his disembodied consciousness into the consensual hallucination that was the matrix" (p.5).

Throughout this discussion of the body in cyberspace there appears to be another element at work here. Certainly, the notions of disembodiment go a long way in describing the seemingly symbiotic relationship between the computer and its human agents. Cyberspace as "extended nervous system" (Glazer), cyberspace as the "embodiment of postmodern disembodiment" (Bukatman), and cyberspace as a kind of "seductive and dangerous cybernetic space" (Stone), are all valid and intriguing ways of trying to come to terms with this pervasive new "space." But there is something missing from these observations, something which Stone alludes to with her notion of the seductive, something which Michael Heim refers to as the "erotic ontology of cyberspace."

To set the record straight, right from the beginning, this is not about "cybersex," or, "teledildonics," or, "phone sex," or any other manifestation of these which seem to be titillating the public at large, with their promise of "safe" sex without the commitment, or, what Arthur Kroker calls: "sex without secretions" (Kroker, 1993, p.9). Although these manifestations seem to be getting a great deal of press lately, they have much less to do with the intricacies of the technology, than they do with the public's fascination with sex, of any kind. This is, of course, not a new fascination, nor is the commentary on it new. Marshall McLuhan let us know in *The Mechanical Bride* that our fascination with body parts, as seen in the advertisements of the popular press (circa 1950), was little more than the marriage of sex and technology.[5] (I will return to the notion of "spare parts" later on in this discussion).

Returning to Michael Heim, it is his contention that the "computer's allure is

more than utilitarian or aesthetic, it is erotic. Instead of a refreshing play with surfaces, as with toys or amusements, our affair with information machines announces a symbiotic relationship and ultimately a mental marriage to technology" (Heim, 1991, p.61). According to Heim, cyberspace represents the world rendered as pure information which captures our minds and hearts and gives us a feeling of augmented power. Our hearts, Heim states, "beat in the machines. This is Eros" (Heim, 1991, p.61). Heim is not necessarily taking a celebratory stance here, unlike many of the commentators on cyberspace. He is wary of the technology which is flirting with making the body superfluous and altering the self. The stand-in body, Heim warns, "can never fully *represent* us. The more we mistake the cyberbodies for ourselves, the more the machine twists ourselves into the prosthesis we are wearing" (Heim, 1991, p.74).

These words seem to echo those of McLuhan in *The Mechanical Bride*, especially his essay of the same name which deals with the flogging of spare-parts, as well as Witold Rybczynski in *Taming The Tiger*. Rybczinski, using Freud's metaphor of technology as a set of artificial organs, warns that using technology "to overcome man's biological limitations has not been altogether a painless experience"... Quite often, Rybczynski observes, there is a hazardous side effect to the prosthesis (Rybczynski, 1983, p.5). It would seem that the same might be true for the technology which gives way to cyberspace. This is not about replacing a limb though; this is about replacing the body. Where, as has been stated earlier, the body becomes "literally 'meat' for the implantation of information devices. The computer plugs jack directly

into the bones of the wrist or skull, and the plugs tap into major nerve trunks so that the chips can send and receive neural signals" (Heim, 1991, p.75).

These innovations, although to my knowledge found only on the pages of cyberpunk novels, suggest a projection, of sorts, of the human into the 'infinite datascape' and the "concurrent construction of a spatial simulacrum of the invisible circulation of information. These narratives literalize Mcluhan's vision of a prosthetic extension of the human nervous system into the new fields of the electronic environment, granting the process and important spatiality which *represents a simultaneous grounding and dislocation of human bodily experience*" (Bukatman, 1993, p.118).[6] Thus, when we read Gibson and others, we are presented with a world which has reconceptualized our notions of the human ability to interface with computer technology, and ultimately our perceptions of what it may mean to be human in the twenty-first century. What we are contemplating here, as Michael Benedikt sees it, is the "arising shape of a new world, a world that must, in a multitude of ways, *begin*, at least, as both an extension and a transcription of the world as we know it and have built it thus far" (Benedikt, 1991, p.23).

When you first read about this the reaction is often one of disbelief. This is the stuff of science fiction, not real life. But, couldn't the same be said for artificial limbs? There seems to be more at stake here though. Making the body obsolete before its time, as soon as consciousness itself can be uploaded into a computer network, is tantamount to bypassing the living, and, as Allucquere Rosanne Stone points out, "[i]t is important to remember that virtual community originates in, and must return to the

physical. No refigured virtual body, no matter how beautiful, will slow the death of a cyberpunk with AIDS. Even in the age of the technosocial subject, life is lived through bodies" (Stone, 1991, pp.112-113).

While this may be true, it doesn't seem to be affecting those determined to forge ahead exploring the possibilities as outlined on the pages of cyberpunk. The "global village," as McLuhan envisioned it, has perhaps far surpassed even his wildest dreams. But this is not without its drawbacks. An international (read multinational) global village which is fed by accelerated competition and driven solely by information, may be host, as Heim puts it, to "unprecedented barbarism." Gibson's "vision of cyberspace", Heim writes, "works like a mental aphrodisiac, but it turns the living environment - electronic and real - into a harsh nightmarish jungle. This jungle is more than a mere cyberpunk affectation, a matter of aestheticizing grit or conflict or rejection. It may also be an accurate vision of the intrinsic energies released in a cyberized society" (Heim, 1991, p.77). This is where the real danger lies, and as such it warrants a closer look at the VR interface and its implications.

THE VR INTERFACE.

Much of what has been said here so far about cyberspace/virtual reality and our interactions with it as human beings, is that we are going through a technological evolution, much the same as was experienced during the Industrial Revolution, or any other age which experienced profound changes due to technology. However, there are some major differences this time around. When we speak of a VR interface we are

essentially redefining human boundaries. These boundaries incorporate our interrelationship with information, technology, the body and space, in an attempt, ironically enough, to eliminate the interface between user and information. As Bukatman observes, this is done "by 'transforming data into environment'. . .The interaction with information takes on a 'direct' sensory quality that makes it 'the ultimate interface'" (Bukatman, 1993, pp.191-192). As such, this technological interface has become a crucial site and a significantly ambiguous boundary between human beings and technology. "The interface," Bukatman states, "relocates the human, in fact *redefines* the human as part of a cybernetic system of information circulation and management. The more invisible the interface, the more perfect the fiction of a total imbrication with the force fields of a new reality" (Bukatman, 1993, p.192).

This overlap in the new reality is a kind of *pastiche* similar to that which is described in various analyses of popular culture. It has also been referred to as *bricolage* and is integral to any discussion on postmodernism. Although this will be covered in greater detail in chapter three, suffice to say here that the VR interface is a bringing together of body and space into a kind of symbiotic existence; if you will, a type of "virtuality," as Rheingold describes it, which has at its core the creation of a conceptual environment. At its best, is the ability to create a seemingly integrated whole, comprising of human and machine, what Rheingold sees as "the true task of designing and implementing [this] virtuality" (Rheingold, 1991, p.177). At its worst, is nuclear destruction, like the apocalyptic car collisions of J.G. Ballard's *Crash* representing, as Bukatman sees it, "the ultimate interface" within the realities of a

technologized existence. The boundaries that exist between these two extremes are certainly malleable ones, and the "blurred interface between human and electronic technology is perhaps the trope that most effectively defines the concerns of postmodern culture" (Bukatman, 1993, p.192).

There are some important questions that need to be asked and hopefully answered concerning the VR interface. How will our interactions with the cyberspace tools and environments effect the way we live, work, and play? How will our interfacing with cyberspace affect our vision of the world, and the way we define ourselves as sensing, thinking, communicating beings? And finally, how will we reconcile these advancing technologies and the utopic, or, quite possibly the dystopic cities of the future?

TECHNOLOGY, UTOPIA AND "PLUG-IN" CITIES.

Gibson's answer to these questions concerning space and time, and our place within them, is to transform these realities into a narrative space, a site of action and circulation. Cyberspace, Bukatman suggests, "in its vectored perfection, its spaceless space, its scaleless scale, and its timeless time, seems like an electronic facsimile" (Bukatkam, 1993, p.121). In other words, cyberspace has some semblance to the original, the "real," but it remains a duplication existing, perhaps, half-way between "here" and "there." Cyberspace produces a unified experience between space and social being in a postmodern culture that has become increasingly fragmented. To some this is a dystopian vision, yet to others cyberspace presents a technological utopia, as

Bukatman sees it, a "simulation of the future, or of the possible, within the framework of the real - the framework of the existing mode of production" (Bukatman, 1993, p.156).

This existing mode of production is seen by Fredric Jameson as the onset of "late capitalism." He argues that the technology of contemporary society is both mesmerizing and fascinating because it offers a method for grasping a network of power and control; this, Jameson contends, is "the whole new decentered global network of the third stage of capital itself" (Jameson, 1991, p.38). The immediate effects of this power and control are most vividly manifested in our cities, as crumbling, urban squalor, and suburban wastelands, give way to the "plugged-in" cities of the future. The fundamental component of these "new" cities is that there is no difference between the outside and the inside. As Jameson observes: "The former streets then become so many aisles in a department store, which, if you think about it in Japanese fashion, becomes the model and the emblem, the secret inner structure and the concept, of the postmodern "city," already, appropriately enough, realized in certain sections of Tokyo" (Jameson, 1991, p.98).

It is in the description of these cities that Gibson makes his mark. The "Sprawl", "Chiba City", "Night City", "BAMA" (Boston Atlanta Metropolitan Axis), all resonate with a structure of interconnectedness. Everything leads to something else, everything broken down into compartments, space having become the most rarefied of commodities. Nowhere is this more evident than the hotels in Chiba. Gibson writes:

> Now he slept in the cheapest coffins, the ones
> nearest the port, beneath the quartz-halogen floods that lit

> the docks all night like vast stages; where you couldn't see
> the lights of Tokyo for the glare of the television sky, not
> even the towering hologram logo of the Fuji Electric
> Company, and Tokyo Bay was a black expanse where gulls
> wheeled above drifting shoals of white styrofoam. (p.6)

This passage is full of contrasts: the smallness of the "coffins" and the "vast stages," the brightness of the "quartz-halogen" lights, and the "black expanse" of the Bay, the limited vision of Tokyo, and the clear sight "white styrofoam," providing a picture of a city plugged-into its surroundings.

But you don't have to go to Japan to see this. You don't have to immerse yourself in science fiction either. If you live in Vancouver (or any other major city in North America, for that matter) you can just hop on the Skytrain, a computer operated, driverless, rapid transport and head to Metrotown. As you approach the station a nondescript female voice will announce: "The next station is . . .METROTOWN", and the train will come to a stop and the doors will automatically open. Once outside, but covered, you can proceed in various directions: home, if you live in one of the many concrete highrises that surround the area; some suites, I am told, are as little as 600 square feet, and quickly shrinking in newer developments as they vie for "coffin-size" status; shopping in the mall; restaurants, doctors, dentists, lawyers, insurance agents, printers, entertainment, library, and the list goes on; everything you need, even a patch of green here and there, is conveniently provided; everything is plugged-in.

Bukatman, quoting Michael Sorkin, sees these changing cities as a "city of simulations, television city, the city as theme park" (Bukatman, 1993, p.122).[7] This is the third stage of capitalism, a radical decentering of the urban environment (The first

stage marked by vast population growth and the emergence of industrial capitalism; the second stage based upon an impoverished city centre surrounded by affluent suburbs). These "metrocentres," Bukatman states, replicate the functions of the urban environment, in miniature, along the highways of North American cities (Bukatman, 1993, p.122). It is no surprise really that cyberspace is introduced via science fiction literature, since it has always been concerned with the representations of cities and space. Just think of all those futuristic settings in, not only science fiction literature, but films as well. The new urban space is essentially directionless, much like cyberspace, and as Paul Virilo comments, with real applicability for cyberspace, "the city is now composed of a 'synthetic space-time' that *simulates* the lost geophysical urban spaces of human habitation and circulation" (Bukatman, 1993, p.126). It is precisely this "synthetic space-time" which makes Gibson's vision so powerful.

There are many possible ways to explain Gibson's vision of the cities of the future. Pam Rosenthal contends, and I am inclined to agree with her, that what Gibson intends "is a critique of a broad tradition in science fiction. It is a tradition that posits technological utopia - freeing human and social life from material pain and necessity" (Rosenthal, 1991, p.82). If this is not immediately apparent in Gibson's earlier work (the first trilogy in particular), it is certainly well represented in his latest novel *Virtual Light*. This notion of an easier life f.ll of convenience and ease is not the sole domain of science fiction. Many cultural studies on the advance and effects of technology have focused on consumer goods, for example machine technology, and their benefits to growing urban and suburban households.[8]

While there are similarities that can be made here, there are fundamental differences as well. The technology of "small appliances" may have revolutionized household chores (even though their initial claim of giving women more spare time turned out to be rather dubious), but they remain, essentially, prostheses to our external bodily limbs. Not so for the technology of cyberspace. Whereas the addiction to convenient appliances is an exterior or outward manifestation of our interaction with technology, the cyberspace addiction, according to Rosenthal, "is an obsessive drive for technological intimacy and mastery that is simultaneously fraught with a sense of intrusion into heretofore private areas of consciousness" (Rosenthal, 1991, p.90).

As would be suspected, there are drawbacks to this kind of interaction. What technology gives with one hand, it often takes away with another. Technology, Michael Heim argues, "increasingly eliminates direct human interdependence." We could call this the double-bind of technology - while some devices give us greater personal autonomy, others disrupt the familiar networks of direct association. Speaking about all technology, Heim suggests that "[b]ecause our machines automate much of our labor we have less to do with one another. Association becomes a conscious act of will. Voluntary associations operate with less spontaneity than those sprouted by serendipity. Because machines provide us with the power to flit about the universe, our communities grow more fragile, airy, and ephemeral, even as our connections multiply" (Heim, 1991, p.74).[9]

So, what does the future hold? Harold Rheingold believes that we need to negotiate a new social contract between ourselves and our tools. The existence of

virtual reality necessitates a re-examination of our industries and our scientific capabilities. It also brings with it, Rheingold contends, "questions about human uses of technology, particularly the technologies that don't yet exist but are visible on the horizon. VR vividly demonstrates that our social contract with our own tools has brought us to a point where *we have to decide fairly soon what it is we as humans ought to become,* because we are on the brink of having the power of creating any experience we desire" (Rheingold, 1991, pp.386-387). Rheingold is suggesting that there needs to be a new agreement between humans and computers, one that if it were indeed negotiated would give us great power and most likely change us irrevocably. There seems to be a level of naivete in all of this. It is even more evident when Rheingold claims that cyberspace technology is not an "either-or" situation, but rather a "both-and" scenario. He envisions people using the technology as an escape, as entertainment, while others will use it "to navigate through the dangerous complexities of the twenty-first century" (Rheingold, 1991, P.391). He says this, all the while hoping that we will be able to steer the technology towards, what he calls, "a new laboratory of the spirit." To me, all this smacks of a naive technological determinism, which undermines and all but ignores the social, not to mention the physiological hazards of merely plugging in and dropping out. Does this sound familiar? But, perhaps this is all part-and-parcel of the "postmodern condition?" It is to this condition that we now turn.

Notes

1. For a detailed discussion of the *nonspace realm* see Melvin M. Webber's (1964) "The Urban Place and the Nonplace Urban Realm."

2. See Alan Turing, (1950) "Computing Machinery and Intelligence."

3. I am using the term here the way Umberto Eco (1986) introduces it in *Travels In Hyperreality*.

4. *Sense-Datum*. The private impression or appearance which. . .is the direct and immediate object of perception. The sense-datum theory is the belief that this is so. Sense-data have also been called sensations, sensa, presentations, representations, precepts, and (by Locke and Berkley) ideas. A visual sense-datum is commonly taken to be a colour-patch or array of colour-patches in, or constituting, the visual field; a tactual sense-datum is a felt, textured, resistant surface. The sense-datum theory is presupposed by representationalism and phenomenalism which seek to avoid solipsism by explaining how belief in an external world can be rationally grounded in direct knowledge confined to sense-data.

5. See Marshall McLuhan's (1951) essay "The Mechanical Bride" in *The Mechanical Bride: Folklore of Industrial Man*.

6. For a more complete explanation of "simultaneous grounding and dislocating," see McLuhan and Powers' (1989) *The Global Village* and their explanation of the Tetrads, in particular the tetrad structure which demonstrates the Mobius loop of enhancement, obsolescence, retrieval, and reversal.

7. See Michael Sorkin, (1992) "Introduction," in *Variations on a Theme Park: The New American City and the End of Public Space*.

8. For a more detailed discussion of this topic see Adrian Forty (1986) *Objects of Desire;* Roland Marchand (1986) *Advertising The American Dream*; and, Grant McCracken (1988) *Culture And Consumption*.

9. For a detailed discussion of communities of the future see Harold Rheingold (1993), *Virtual Communities*.

Chapter 3

CYBERPUNK AND THE POSTMODERN CONDITION

. . .[P]ostmodernism, which is theorized and expressed in intellectual and artistic practices, can be seen as an index or harbinger of a broader postmodern culture, a wider set of changes in the production, consumption, and circulation of cultural goods and practices. Eventually it may be the case that these tendencies assume epochal properties and hence signify a move towards postmodernity. Mike Featherstone

DEFINING THE UNDEFINABLE.

In 1968, Kenny Rogers and The First Edition had a #5 hit song with: "Just Dropped In (To See What Condition My Condition Was In)." Not exactly a memorable tune, but reminiscent of the days of Timothy Leary and, what seems now as, the quaint "fad" of "tuning in and dropping out." At the risk of being too nostalgic, those were fairly "heady" times, but it strikes me that the title of this particular song has a kind of connection to the "postmodern condition." After all, postmodernism has eluded the comfortable categorizing, the one-label-says-it-all definition, that we in the West seem most at home with. It has, in effect, become a "condition" and I would take this further to suggest that it is really a condition of "conditions."

Cyberpunk, as some suggest, has a close affinity to the postmodern condition, often being called postmodern fiction. Much of this has to do with cyberpunk's (in particular Gibson's) foray into cyberspace and the speed at which information and technology are transferred. The gritty landscape and seemingly shallow characters that Gibson serves up, appear to resemble, if not represent, what the postmodern condition

is all about. So, in trying to come to grips with what the postmodern condition is, we are at the same time trying to define cyberpunk. With this in mind, I will attempt to define the undefinable.

For those that have argued (and they seem to be increasing in numbers) that PoMo (herein interchangeable with postmodernism) is nothing more than a passing fad, an academic exercise in futility, or a stylistic posturing, the following will both support and deny these claims. This seems to me the only way around the dilemma of presenting both a literature review and a literature critique at the same time. Part of the problem in trying to pin down PoMo is that many of its commentators have taken the position that it cannot be defined using the usual methods of investigation. For example, Baudrillard contends that "any attempt to discuss the glutinous masses in terms of normativity, or class analysis in the manner of Bourdieu, is doomed to failure as it is a form of analysis belonging to the previous stage of the system now superseded" (Featherstone, 1991, p.33). This is a fairly advantageous position to take if you want to set something up as both exclusive and impenetrable. Rejecting previous methods of analysis, as being outmoded, therefore irrelevant, is one way of doing this. Postmodernism, as Featherstone suggests, "involves the notions of a postmetaphysical and postmodern epoch, with the rejection of the modernist idea of historical development, or a unifying point of view that can be imposed upon history" (Featherstone, 1991, p.33).

Given these rather restrictive parameters, it is no wonder that PoMo has been difficult to pin down. Another problem that arises with PoMo is its appetite for

inclusion. Postmodernism seeks to be everything to everyone, yet its defining edict is controlled by few. Here Featherstone suggests that we have to raise "the sociological objection against the literary intellectual's licence in interpretating [sic] the everyday, or in providing evidence about the everyday lives of ordinary people" (Featherstone, 1991, pp.4-5). There is quite a jump from outlining the doctrines of modernity, or postmodernity as a relatively restricted subjective experience, to outlining the actual practices, incorporating the larger masses. Living in a *postmodern age*, in other words, has different meanings for a cultural theorist and a MacDonald's burger flipper.

Putting aside these frustrating and often ironic tendencies for yet another subjective attempt to make some sense of all of this, postmodernism represents "some kind of reaction to, or departure from, 'modernism.'" Postmodernism, by way of contrast, David Harvey argues in *The Condition of Postmodernity*, "privileges 'heterogeneity and difference as liberative forces in the redefinition of cultural discourse.' Fragmentation, indeterminacy and intense distrust of all universal or 'totalizing' discourses (to use the favoured phrase) are the hallmark of postmodernist thought" (Harvey, 1990, p.7). The issue here is the move away from a 'politics' of *seclusion*, towards a 'politics' of *inclusion*. Some critics see these 'political' shifts as a set of changing narratives within the discourse of cultural theory. David Harvey, quoting Terry Eagleton, states that

> Post-modernism signals the death of such 'metanarratives'
> whose secretly terroristic function was to ground and
> legitimate the illusion of a 'universal' human history. We
> are now in the process of wakening from the nightmare of
> modernity, with its manipulative reason and fetish of the
> totality, into the bid-back pluralism of the post-modern,

> that heterogeneous range of lifestyles and language games
> which has renounced the nostalgic urge to totalize and
> legitimate itself. . .Science and philosophy must jettison
> their grandiose metaphysical claims and view themselves
> more modestly as just another set of narratives. (Harvey,
> 1990, p.9)

Although this sounds enlightening, there is the ever-present danger of trading one set of fetishisms and manipulations for another. We may be "wakening from the nightmare of modernity," as Harvey states, but we may also be entering into another nightmare of fragmentation and meaninglessness. This should not be construed as a call to return to old ways, ways that were often repressive and debilitating; rather, it is a warning that the suggested replacement may also have its drawbacks. One way of highlighting these drawbacks is to understand where the precursor to postmodernism, modernism originates from.

According to David Harvey, the modernism that emerged before the First World War "was more a reaction to the new conditions of production (the machine, the factory, urbanization), circulation (the new systems of transportation and communications) and consumption (the rise of mass markets, advertising, mass fashion) than it was a pioneer in the production of such changes" (Harvey, 1990, p.23). This definition leaves open the possibility that postmodernism is the "reaction" to living with these changes for over fifty years! Our reliance on production, circulation and consumption has created an atmosphere of heterogeneity in that the *speed* of life has reached a point where changes in these areas occur daily. Much of this fluctuation and difference is reflected in the arts. Modernist work, writes Harvey, often "wilfully reveals its own reality as a construction or an artifice thereby transforming much of art

into a 'self-referential construct rather than a *mirror* (emphasis mine) of society"

(Harvey, 1990, pp.20-21). In contrast, Harvey suggests that the

> central features associated with postmodernism in the arts
> are: the effacement of the boundary between art and
> everyday life; the collapse of the hierarchal distinction
> between high and mass/popular culture; a stylistic
> promiscuity favouring eclecticism and the mixing of codes;
> parody, pastiche, irony, playfulness and the celebration of
> the surface 'depthlessness' of culture; the decline of
> originality/genius of the artistic producer; and the
> assumption that art can only be repetition. (Harvey, 1990,
> pp.7-8)

In other words, postmodern art can only *be*, in the final analysis, a *mirror* of society.

This fact is echoed in many of the descriptions and definitions of postmodernism.

Fredric Jameson implies that one of the supreme formal features of

postmodernism is the "emergence of a new kind of flatness or depthlessness, a new kind

of superficiality . . ." (Jameson, 1991, p.9). David Harvey contends that

postmodernism has at its core the "total acceptance of the ephemerality, fragmentation,

discontinuity, and the chaotic that formed the one half of Baudelaire's conception of

modernity. . . Postmodernism swims, even wallows, in the fragmentary and the chaotic

currents of change as if that is all there is" (Harvey, 1990, p.44). Mike Featherstone

defends the concept of postmodernism as being more than an "academic" term in that it

has gained "its impetus from the artistic 'movements' and it is also attracting wider

public interest through its capacity to speak to some of the cultural changes we are

currently going through" (Featherstone, 1991, p.1). The common denominator here is

the ability of postmodernism's spokespeople to adapt, incorporate and include. There

appears to be a willingness amongst the theorists to rally around a new beginning, even

if they have to create their own language and "texts" to do so.

This creation of both language and texts is no "accident" according to Jameson. Today, Jameson contends, "in full postmodernism, [as we find ourselves] the older language of the "work" - the work of art, the masterwork - has everywhere largely been replaced by the rather different language "text," of texts and textuality. . ." (Jameson; 1991, p.77). Much of this is due to a faithful, if not misguided, conformity to poststructuralist linguistic theory, where the past as a referent is being effaced altogether, leaving us with nothing but texts. These so called texts are the domain of everyone. All groups have the right to speak for themselves in their own voice, and have that voice accepted as authentic and legitimate; this is central to the pluralistic stance of postmodernism. It is also one of its key problems.

David Harvey suggests that "most postmodernist thinkers are fascinated by the new possibilities for information and knowledge production, analysis, and Transfer. Lyotard (1984) for example, firmly locates his arguments in the context of new technologies of communication and, drawing upon Bell's and Touraine's theses of the passage of a 'postindustrial' information-based society, situates the rise of postmodern thought in the heart of what he sees as a dramatic social and political transition in the language of communication in advanced capitalist societies" (Harvey, 1990, pp.48-49). This transition is fraught with double standards and contradictions which make its accessibility difficult at best. Since one of the primary functions of postmodernism, and postmodernist thought for that matter, is to reproduce itself in its own image, there is always the danger that the realized myth of recreation becomes the essential ideological

ingredient to social and political reproduction, in fact, a kind of closed cybernetic system.

Nowhere is this more evident than the postmodern movement in architecture which, as Harvey explains, "invokes the schizophrenia that many others identify as a general characteristic of the postmodern mind-set. Architecture . . . must embody a double coding, 'a popular traditional one which like spoken language is slow-changing, full of cliches and rooted in family life,' and a modern one rooted in a 'fast-changing society, with its new functional tasks, new materials, new technologies and ideologies'" (Harvey, 1990, p.83). Cyberspace, which has its origins in postmodern fiction, is also concerned with architecture in that its constructed pathways resemble the architecture of postmodern cities - everything leads to everything.

Cyberspace is also dependent on the rapid changes in technology and information transfer, which are central to changes in Western society. Postmodernity, as Featherstone suggests, presupposes an "epochal shift or break from modernity involving the emergence of a new social totality with its own distinct organizing principles" (Featherstone, 1991, p.3). These principles are grounded in the idea that the world is changing faster than we can keep up with, and as such our perceptions of "reality" are being constantly challenged. Jean Baudrillard comments on this as well when he stresses that "the new forms of technology and information become central to the shift from a productive to a reproductive social order in which simulations and models increasingly constitute the world so that the distinction between the real and appearances becomes erased" (Featherstone, 1991, p.3).

Part of the reason here for singling out Western society in all of this is the seemingly sponge-like way in which we absorb all these changes that postmodernism rings in. As Fredric Jameson observes, postmodernism's own "offensive features - from obscurity to sexually explicit material to psychological squalor and overt expressions of social and political defiance, which transcend anything that might have been imagined at the most extreme moments of high modernism - no longer scandalize anyone and are not only received with the greatest complacency, but have themselves become institutionalized and are at one with the official or public culture of Western society" (Jameson, 1991, p.4). Part of this complacency, if not confusion, has to do with our relationship to technology and the way it is presented to us in our daily lives and in our fictions.

In discussing the shift in the postmodern novel from an 'epistemological' to an 'ontological' dominant, David Harvey "argues that the boundary between fiction and science fiction has, as a consequence, effectively dissolved, while postmodernist characters often seem confused as to which world they are in, and how they should act with respect to it" (Harvey, 1990, p.41). This is particularly true for some of the characters in cyberpunk, whose travels back and forth from cyberspace (hyperreality) to the real world (reality) pose increasing problems of recognition and identity. This representation of the postmodern world affirms the radical ways in which technology is affecting our lives, and as Larry McCaffery puts it, "the shared perception among a significant number of postmodern artists that art which doesn't come to grips, formally and thematically with these changes is irrelevant or (less harshly) out of sync with the

times" (McCaffery, 1988, p.13).

Cyberpunk's popularity stems from its treatment of these changes in technology and its ability to transcend its label as a genre of science fiction. As well, cyberpunk stands at the brink of being the supreme example of postmodern fiction. Cyberpunk's narrative strategies, McCaffery suggests, "can be shown to unfold in a typically "postmodernist" way: mixing together genres, borrowing devices from the cinema, computer systems, and MTV, infusing the rhythms of its prose with those of rock music and television advertising, pastiching prior literary forms and otherwise playing with literary elements, and above all adopting the familiar "mythic" structures and materials which can be then undercut and subsequently exploited for different purposes" (McCaffery, 1988, p.14). This type of fiction can be viewed as "mimetic" (Harvey,114) in that it bears an uncanny resemblance to the increasing ghettoization, disempowerment, and isolation of the minority populations in major cities across North America and Europe. But it is also dangerous, as Harvey later points out, to think of postmodernism as solely mimetic; rather, it can be seen as an "aesthetic intervention in politics, economy, and social life in its own right" (Harvey, 1990, p.114).

Gibson's trilogy of cyberpunk novels presents just such an "aesthetic intervention." Gibson uses these novels to present his own agenda, which is a veritable casebook of postmodern SF concerns. As Larry McCaffery lists in, *Storming The Reality Studio*, these concerns incorporate:

> the contrast between the human "meat" and metal; the
> relationship between human memory and computer
> memory; the denaturing of the body and the transformation
> of time and space in the postindustrial world; the

increasingly abstract interaction of data and images in this
world; the primacy of information in the "dance of data"
that compromises so much of life today (a "dance" which
Gibson employs as a metaphor for everything from the
interaction of subatomic particles to the interactions of
multinational corporations); the ongoing angst and paranoia
(evident as well in the works of Burroughs, Dick,
Pynchon, and DeLillo) that some overarching demiurge is
manipulating individuals and international politics; [and]
the mystical sense that our creation and re-creation of data
and images produces [sic] systems capable of merging with
one another into new intelligences. (McCaffery, 1991,
p.15)

All of this haunts most postmodern SF, along with the knowledge that there seems to be

a "primal" urge to replicate our consciousness and our physical beings into computer

models, and that somehow this is supposed to lead us closer to the dream of

immortality. However, as McCaffery correctly surmises, this attempt at replication (so

eerily portrayed in the film "Bladerunner") merely creates "a pathetic parody, a

metaexistence or simulacra of our essences that is supplanting us, literally taking over

our physical space and our roles with admirable proficiency and without the drawbacks

of human error and waste . . .without, in short, the messy unruly passions which also

make the brief moment from conception to death so exhilarating and so frightening.

And so human" (McCaffery, 1991, p.15).

An ingredient of this humanity is our ability to cope with space and time. As

McCaffery points out, our new technologies are increasingly blurring the distinctions

between the two and "literally taking over our physical space." We are beginning to

live in a simulated world, where space and time have been compressed and altered so

that our conceptions of the two are irrevocably changed. Fredric Jameson sees these

changes as part of the movement away from modernism. He feels that we are now living in a synchronic rather than a diachronic age and that it is "at least empirically arguable that our daily life, our psychic experience, our cultural languages, are today dominated by categories of space rather than by categories of time, as in the preceding period of high modernism" (Jameson, 1991, p.16).[1] With this in mind, it is time to take a closer look at the time/space continuum.

POSTMODERNISM AND THE TIME/SPACE CONTINUUM

Fredric Jameson identifies the two basic features of "postmodernism as (1) the transformation of reality into images and (2) a schizophrenic fragmentation of time into a series of perpetual presents" (Featherstone, 1991, p.42). This "fragmentation" could explain the rejection by postmodern theorists of any kind of historical analysis. Living as we are in a "series of perpetual presents," negates the need for any kind of historical markers, but at the same time distorts our notions of social interaction. As David Harvey suggests, "the experience of time and space has changed, the confidence in the association between scientific and moral judgements has collapsed, aesthetics has triumphed over ethics as a prime focus of social and intellectual concern, images dominate narratives, ephemerality and fragmentation take precedence over eternal truths and unified politics, and explanations have shifted from the realm of material and political-economic groundings towards a consideration of autonomous cultural and political practices" (Harvey, 1990, p.328). In other words, we are shifting to an imagistic, spatial simulacrum of ourselves which, as some might say, is subject to

radical changes on a daily, if not hourly, basis.

Although this sounds like an outright rejection of the past, of history, it is really more our capability, through technology, to incorporate the past and turn it into the present, however misrepresented this may turn out to be. As Harvey proposes: "We not only possess, therefore, the capacity to pile images from the past or from other places electrically and simultaneously upon the television screen, but even to transform those images into material simulacra in the form of built environments, events and spectacles, and the like which become in many respects indistinguishable from the originals" (Harvey, 1990, pp.289-290). This is exactly what the advertising industry does. Advertising is fueled by a continuous stream of nostalgic memories parading the airwaves as history. These images become quickly incorporated into the lexicon of the present, their original meaning lost to time. Being suffused with immemorial spatial memory, Harvey believes, "transcends Becoming. It founds all those nostalgic memories of a lost childhood world" (Harvey, 1990, p.218). And it begs the question: Should this be the foundation for our collective memory, our sense of place, our images of country and city, of neighbourhood and community? The answer to this question depends a great deal on who is doing the asking!

Our collective experience over the years of time/space "compression," primarily under the guise and pressures of more flexible modes of accumulation, "has generated," Harvey surmises, "a crisis of representation in cultural forms, and that this is the subject of intense aesthetic concern . . .If there is a crisis of representation of space and time, then new ways of thinking and feeling have to be created. Part of any trajectory

out of the condition of postmodernity has to embrace exactly such a process" (Harvey, 1990, p.322). Whether current filmic and narrative aesthetics are leading the way out of postmodernity, is a matter of interpretation, suffice to say here though that there have been many attempts to deal with the crisis of representation of space and time. Films such as "BladeRunner," "Total Recall," and "Lawnmower Man" all deal with time and space. Although they do so in different ways, central to each film's motif are various imagined representations of space such as: utopian plans; imaginary landscapes; science fiction ontologies; mythologies of space and place.[2]

This is certainly true of Gibson's *Neuromancer*. For example, Gibson's description of a computer-generated map falls into the category of mythologies of space and place. Gibson writes:

> Program a map to display frequency of data
> exchange, every thousand megabytes a single pixel on a
> very large screen. Manhattan and Atlanta burn solid white.
> Then they start to pulse, the rate of traffic threatening to
> overload your simulation. Your map is about to go nova.
> Cool it down. Up your scale. Each pixel is a million
> megabytes. At a hundred million megabytes per second,
> you begin to make out certain blocks in midtown
> Manhattan, outlines of hundred-year-old industrial parks
> ringing the old core of Atlanta. . . (p.43)

This is space collapsed into megabytes, hundreds of millions of them representing cities and then individual blocks, like flying over the city on a clear day, but without the plane. Gibson elaborates further on in the text when he has the central character Case thinking about a holographic advertisement for travel to a location in outer space called FREESIDE. Gibson writes: "He'd seen the ad, or others like it, thousands of times. It had never appealed to him. With his deck, he could reach the Freeside banks as easily

as he could reach Atlanta. Travel was a meat thing. . ." (p.77). Here again we are

reminded of the "body-as-meat" that was discussed in chapter two.

Freeside, however, is more than just a vacation destination; it is one of those

imaginary landscapes that David Harvey talks about. Is it real? Well, let's just say that

it is familiar, in that we may recognize its attributes without recognizing its location. It

is a simulation of simulated data, stored in the memory banks of some large computer,

but also stored in the memory banks of consciousness. As Gibson writes in

Neuromancer:

> Archipelago.
> The Islands. Torus, spindle, cluster. Human DNA
> spreading out from gravity's steep well like an oilslick.
> Call up a graphics display that grossly simplifies the
> exchange of data in the L-5 archipelago. One segment
> clicks in as red solid, a massive rectangle dominating your
> screen.
> Freeside. Freeeside is many things, not all of them
> evident to the tourists who shuttle up and down the well.
> Freeside is brothel and banking nexus, pleasure dome and
> free port, border town and spa. Freeside is Las Vegas and
> the hanging gardens of Babylon, an orbital Geneva and
> home to a family inbred and most carefully refined, the
> industrial clan of Tessier and Ashpool. (p.101)

Imagine a place that combines Las Vegas, Geneva and Babylon! A potpourri of vice,

anonymity, and the spiritual, something for everyone. Perhaps this is what a global

network of capital and technology provides. Or, is it? Is it really the utopia that it

portends to be? Is this where we are heading in the third stage of capitalism, to a

Shangra-La of money and sex? How do we make sense of all of this?

These questions are a part of the postmodern dilemma. How do we read the

signs (read symptoms) of this landscape? Fredric Jameson believes it is an either-or

scenario. He writes: "In place of the temptation either to denounce the complacencies of postmodernism as some final symptom of decadence or to salute the new forms as harbingers of a new technological and technocratic Utopia, it seems more appropriate to assess the new cultural production within the working hypothesis of a general modification of culture itself with the social restructuring of late capitalism as a system" (Jameson, 1991, p.62). Jameson appears to be hedging his bets here, not quite sure whether to embrace postmodernism as a technological utopia, or approach it somewhat cautiously. This is also somewhat of a turn-around from his earlier statement that technology has the ability to do an about-face on us, relegating us to a dystopian future.[3] Much of the technology of contemporary society is both mesmerizing and fascinating, offering a myriad of possibilities for the future. Technology seems to offer, Jameson feels, "some privileged representational shorthand for grasping a network of power and control even more difficult for our minds and imaginations to grasp: the whole new decentered global network of the third stage of capital itself" (Jameson, 1991, pp.37-38).

So, where does postmodernism fit into all of this? And, how does cyberpunk become, for Jameson at least, the epitome of this third stage? Perhaps it has to do with the relationship between technology and human beings, the interface between machine and machine, that creates a kind of continuity out of the discontinuity. "Whether the technique is graphic or narrative," Scott Bukatman explains, "the cyberblitz effect is the same. Elements commingle with the same space, creating a metaphorical connection. Rather than privileging discontinuity, postmodernism often tends to reduce experience to

an ersatz continuity, a simultaneity or coexistence without history. More effective

works emphasize the displacement within (and through) that continual interface of

forms, images, and technologies" (Bukatman, 1993, p:15).

This is exactly what Gibson does. His characters exude this interface, coming

alive on the pages as figureheads for the explosion of capital and technology. For

example, this description of a character from *Neromancer*:

> Julius Deane was one hundred and thirty-five years
> old, his metabolism assiduously warped by a weekly
> fortune in serums and hormones. His primary hedge
> against aging was a yearly pilgrimage to Tokyo, where
> genetic surgeons re-set the code of his DNA, a procedure
> unavailable in Chiba. Then he'd fly to Hongkong and order
> the year's suits and shirts. Sexless and inhumanly patient,
> his primary gratification seemed to lie in his devotion to
> esoteric forms of tailor-worship. Case had never seen him
> wear the same suit twice, although his wardrobe seemed to
> consist entirely of meticulous reconstructions of garments
> of the previous century. He affected prescription lenses,
> framed in spidery gold, ground from thin slabs of pink
> synthetic quartz and beveled [sic] like the mirrors in a
> Victorian dollhouse. (p.12)

This passage epitomizes the postmodern compression of time and space into a continuity

of form, image and technology. Julius Deane is a true postmodern figure, physically

alive, technologically dependent; living in the future, yet tied to the past; a man of

patience, receiving his pleasure, not from the flesh, but from the suits which cover it.

He comes across as a living advertisement for a local clothing store - a pastiche of

media images rolled up into one frail body. This is an important element of

postmodernism. David Harvey confirms this when he writes: "The postmodern

penchant for jumbling together all manner of references to past styles is one of its more

pervasive characteristics. Reality, it seems, is being shaped to mimic media images"

(Harvey, 1990, p.85). With this in mind, let's take a closer look at putting the pieces

together.

PUTTING THE PIECES TOGETHER: POSTMODERNISM AND PASTICHE

"The success story of the word *postmodernism*," Jameson writes, "demands to be

written, no doubt in best-seller format; such lexical neo events, in which the coinage of

a neologism has all the reality impact of a corporate merger, are among the novelties of

media society which require not merely study but the establishment of a whole new

media-lexicological subdiscipline" (Jameson, 1991, p.xiii). Perhaps this is the niche

that cyberpunk is looking for; rather than a genre of SF, cyberpunk could be the

literature of choice for this new "media-lexicological subdiscipline." After all, it has all

the components: abundant neologisms, multinational drive, street savvy, technology run

amok, and an aesthetic which is best described as tossing culture, commerce, and

humanity into a blender and letting it run at full speed for a while.

This is, as Larry McCaffery describes it, cyberpunk's "postmodernist spirit of

free play (jouissance) and collaboration, its delight in creating cut-ups and collages (a la

Burroughs) in which familiar objects and motifs are placed in startling, unfamiliar

contexts" (McCaffery, 1988, p.14).[4] In essence, this is what popular culture does; it

creates a field of stylistics and "discursive heterogeneity" without a norm. To grasp the

language of cyberpunk (in itself not an easy task) is to understand the imagination of the

multinationals in postmodernism; it is to understand how a new writing like cyberpunk,

as Jameson remarks, "determines an orgy of language and representation, an excess of

representational consumption . . .[and] a way of talking yourself into it and making,

more than a virtue, a genuine pleasure and jouissance out of necessity, turning

resignation into excitement and the baleful persistence of the past and its prose into a

high and an addiction" (Jameson, 1991, p.321).

If we are addicted to anything in Western society, it is consumption. Our

seemingly hedonistic ways can be traced back to the 1950's and our emergence out of

World War 11 shortages. Thus began, as Jameson puts it, the economic preparation of

postmodernism or late capitalism. He explains the "late" as meaning that "something

has changed, that things are different, that we have gone through a transformation of the

life world which is somehow decisive but incomparable with the older convulsions of

modernization and industrialization, less perceptible and dramatic, somehow, but more

permanent precisely because more thorough-going and all--pervasive" (Jameson, 1991,

p.xxi). Part of this transformation can be explained as a shift from "Fordist

production," based on the economies of scale, to more of a "just-in-time production"

based on economies of scope. This shift in flexible accumulation, as outlined by David

Harvey in *The Condition of Postmodernity*, focuses on the changes in the production

process, labour, space, the state, and, of importance here the ideology of consumption.[5]

The individualization of our consumption which Harvey alludes to is

encapsulated in the way that the culture of the simulacrum (using Plato's conception -

the identical copy for which no original exists) comes to *life* in a society where

exchange value has been generalized to the point where the memory of use-value is

effaced (Jameson, 1991, p.18). In this society the "image has become the final form of commodity reification" (DeBord, 1970). Much of this is evident in the symbolic associations of commodity signs. Mike Featherstone, citing Baudrillard's *For a Critique of the Political Economy of the Sign*, contends that the shift away from use-value "leads to the loss of a sense of concrete reality as the consumer-television culture with its floating mass of signs and images produces an endless series of simulations which play off each other" (Featherstone, 1991, p.99). This is what Baudrillard refers to as 'hyperreality,' but if commodity-signs have led to a loss of a sense of concrete reality, what will virtual reality produce in terms of a sense of cultural identity?

Perhaps this is what David Harvey is getting at when he says that the control over information flow and over the vehicles for propagation of popular taste and culture have become vital weapons in a competitive struggle. The struggle is over large corporations' control over the mechanisms of distribution and advertising expenditures. As Harvey suggests, "the latter have grown markedly since the 1960's and eat up even larger proportions of corporate budgets because in a highly competitive world, it is not simply products but the corporate image itself that becomes essential, not only to marketing but also for raising capital, pursuing mergers, and gaining leverage over the production of knowledge, government policy, and the promotion of cultural values" (Harvey, 1990, p.160).

The unprecedented growth of multinational capital in the latter half of the twentieth century is of great concern since every one is affected. The structure of many of these huge corporations is much like postmodernism itself - diversified into many

different areas (monopolies, oligopsonies, monopsonies, vertical integration, etc.),

exerting control over many facets of society and culture. This could explain the reason

why postmodernism, at least the concept of postmodernism, is receiving so much

attention. As Fredric Jameson comments: . . ."every position on postmodernism in

culture - whether apologia or stigmatization - is also at one and the same time, and

necessarily an implicitly or explicitly political stance on the nature of multinational

capitalism today" (Jameson, 1991, p.3).

The prime reason for this politicization is that in postmodern culture, 'culture'

has become a product. The marketplace has, in a way, become a substitute for itself, as

much a commodity as any one of the commodities it contains. Postmodernism then, as

Jameson observes, "is the consumption of sheer commodification as process" (Jameson,

1991, p.x) This speaks volumes about the "pastiche" of consumer society. As

discussed above, advertising, marketing, design, etc., have all combined to create a

"dream world" mentality - a society trying desperately to fit the pieces together. Mike

Featherstone equates these dream worlds with the function of display windows. "As

cultural intermediaries," he says, "they have the important role in educating the public

into new styles and tastes" (Featherstone, 1991, p.77). Those responsible for creating

these "windows" are also responsible for transmitting their collective aesthetic

sensibilities in an important "stylization" of life to the public at large.[6]

If these display windows are in fact the "dream worlds" of consumption, what

then does cyberspace represent? In some ways it is also a window, but an interactive

one. This would seem to empower those using it as opposed to passively peering at the

displays of consumer goods. While it is true that we can create our own styles, we are also limited in doing so. The proponents of cyberspace, however, are always talking about the limitlessness of the "net." In discussing "Internet," Bruce Sterling, in *The Hacker Crackdown*, comments that it is the largest news network in the world, and it is growing by "leaps and bounds." Yet, you cannot measure Internet, Sterling claims, "because you cannot stop it in place. It cannot stop, because there is no one anywhere in the world with the authority to stop Internet. It changes, yes it grows, it embeds itself across the postindustrial, postmodern world, and it generates community wherever it touches, and it does this all by itself" (Sterling, 1992, p.310). To me this is rather ominous.

There is a definite link here between this ever-expanding net and the stylistic eclecticism of urban lifestyles, labelled as postmodernism. One of the aspects of this new lifestyle is a movement beyond individualism, to a "de-centering of the subject." As Mike Featherstone observes, "the de-centred subject has a greater capacity to engage in a controlled de-control of the emotions and explore figural tendencies, immediate sensations and affective experiences formerly regarded as threatening, as something which needs to be kept at bay or strictly controlled" (Featherstone, 1991, p.101). In a sense this is what the net offers, an opportunity to be anyone, to move outside the individual. And, as Bruce Sterling has observed, there is little control over the net. Whether this means that it is out of control, or, just uncontrollable, remains to be seen.

Of course these new urban lifestyles need places to flourish - where better than the "plug-in" cities, the urban landscapes with their projects for gentrification, their

shopping malls, theme parks, hotels, museums and galleries (once the domain of high culture, now catering to larger audiences with spectacle, sensation, and illusion). One of the persistent ironies in all of this is that many of the creators of cyberspace are in fact recreating old-world (read postmodern) cityscapes for their illusions. As well, many of the old hierarchies are still in place in cyberspace, which makes me wonder why nothing has really changed. Featherstone attributes this to a new communal feeling, "a new 'aesthetic paradigm' in which masses of people come together in temporary emotional communities" (Featherstone, 1991, p.101).[7] All of this promotes what John Urry calls the "tourist gaze," which allows for the elevation of cities, once thought to be declining, into the limelight once again.[8] This is done with cultural capital and, what Featherstone sees as "the postmodern facade of cultural redevelopment" which essentially covers over the decline of everything else (Featherstone, 1991, pp.106-107). Whether or not we can continue to gloss-over the problems of contemporary society with facades instead of dealing with the problems, is probably *the* question of the twenty-first century. Cyberspace/virtual reality appears to be the hope of many as an answer to some of these problems, while others feel that it is merely an extension of them. It remains to be seen what will happen.

Notes

1. This idea is explored further in Marshall McLuhan and Bruce R. Powers' (1989) *The Global Village*.

2. These representations of space are taken from David Harvey's (1990) "A 'grid' of spatial practices" (Table 3.1) in *The Condition of Postmodernity*, pp.220-1).

3. Jameson (1991) seems rather wary of technology. He writes that "technology may well serve as adequate shorthand to designate that enormous properly human anti-natural power of dead human labor store up in our machinery. . .which turns back on and against us in unrecognizable forms and seems to constitute the massive dystopian horizon of our collective as well as our individual praxis" (p.35).

4. The word *jouissance* here is used in the sense that Roland Barthes intended, to differentiate between *jouissance* and *plaisir*. As John Fiske (1989) writes: "*Jouissance*, translated variously as bliss, ecstasy, or orgasm, is the pleasure of the body that occurs at the moment of the breakdown of culture into nature. It is a loss of self and of the subjectivity that controls and governs the self - the self is socially constructed and therefore controlled, it is the site of subjectivity and therefore the site of ideological production and reproduction. The loss of self is, therefore, the evasion of ideology" (p.50).

5. See table 2.8, pp.177-9 in David Harvey's (1990) *The Condition of Postmodernity*. Under the ideology heading the following distinctions are made between Fordist production and just-in-time production: Mass consumption of consumer durables: the consumption society, to individualized consumption: 'yuppie'-culture; modernism to postmodernism; totality/structural reform to specificity/adaptation; socialization to individualization, the 'spectacle' society.

6. For more on stylization and popular culture, see Simon Frith and Howard Horne's (1987) *Art into Pop*.

7. The notion of emotional community is expanded upon in Howard Rheingold's, (1993) *The Virtual Community: Homesteading on the Electronic Frontier*.

8. For more on the "tourist gaze," see John Urry's (1988) "Cultural Change and Contemporary Holiday-making."

SUMMARY AND CONCLUSIONS

Heidegger was wrong. Technology is not something restless, dynamic and ever expanding, but just the opposite. The will to technology equals the will to virtuality. And the will to virtuality is about the recline of western civilization: a great shutting-down of experience, with a veneer of technological dynamism over an inner reality of inertia, exhaustion, and disappearances, and where things are only experienced in the "real time" of recycled second, third, and fourth-order simulations. And everyone has got into the act. Even that Berlin fireman who was caught recently videotaping, instead of fighting, a 4-alarm blaze for Germany's Reality TV. Arthur Kroker

It should not be surprising that we have come to this. After all, it was not that long ago that George Grant, building on Nietzsche's "will to power," warned us that while technology does have enormous benefits, it also deprives us, suffocating human life under the dependency of technology and science.[1] Kroker expands on Grant's "will to technology" by equating it with the "will to virtuality," and the association is an accurate one. Howard Rheingold also talks of virtuality as a "structure of seeming - the conceptual feel of what is created." He asks the question: "What conceptual environment are you in?" - And responds by saying that "[i]t is this environment, and its response qualities and feel, that matter - not the irrelevant "reality" of implementation details" (Rheingold, 1991, p.177). On the contrary, it is **precisely** the "reality" of implementation that matters. When Stewart Brand speaks of inventing the future, he does so in the context of the machines and the technology which will do so, this is key.[2]

This thesis is about cyberpunk literature, cyberspace, and the postmodern condition, but underlying these enquiries is a fascination for what the future might hold

for humanity in this technological age. The central issue here is the interaction between human beings and machines, once considered as prostheses, now considered as replacements for the body altogether - the disembodied future. As Raymond Williams states: "*The technological transformation* is the utopian or dystopian mode narrowed from agency to instrumentality; indeed it only becomes utopian or dystopian, in strict senses, when it is used as an image of *consequence* to function, socially, as conscious desire or conscious warning" (Williams, 1980, p.199). Welcome to the dystopian future!

Even if you are an eternal optimist, there is nothing to cheer about in Gibson's future. If Gibson is right, and there appears to be increasing evidence that he is more right than wrong, our bodies are becoming superfluous, our day-to-day lives increasingly controlled by a few multinationals who will soon re-define the meaning of power. Gibson's cyberpunk narrative, or, virtual reality narrative, operates as an interface between human beings and technologized culture, providing, as Bukatman states, "a continuity between subject and machine." (Remember, Gibson even calls his computer program "continuity" in *Mona Lisa Overdrive*). "Science fiction," Bukatman continues, "is most explicit in narrating (and thus in a sense, *producing*) such a continuum . . .In the hands of many writers, the text becomes a machine itself" (Bukatman, 1993, p.194).

Including cyberpunk literature and the cyberpunk narrative as part of the larger genre of science fiction necessitates some kind of comparison between old and new. Why is cyberpunk dystopian, when much of the science fiction of the past is considered

utopian? Part of the answer lies in the aesthetics of each. Utopian science fiction is often represented, both in literature and film/tv as gleaming steel, rounded surfaces, smooth edges, streamlining, speed, exploration, and new frontiers. One only has to think of "Star Trek's" opening statement: "Space - The final frontier . . .These are the voyages of the starship *enterprise*. Its five-year mission: To explore strange new worlds, to seek out new life and new civilizations, **to boldly go where no one has gone before**" (Gene Roddenberry).

Cyberpunk, on the other hand, is represented by crumbling urban decay, uneven textures, jagged edges, stationary travel (the mind goes but the body stays), and old frontiers with new faces. Star Trek is about renewal and hope for the future, an attempt at peace with other worlds and other civilizations; cyberpunk is about survival in our own civilization, coping in a world turning more inhospitable each day, coping with technology that is invading our lives. Perhaps the perfect antithesis to Star Trek are the opening scenes from BladeRunner. This is Gibson's vision - coming soon to a theatre or neighbourhood near you!

Paranoia? Perhaps. But, more realistically, it is a "high-tech paranoia," as Fredric Jameson calls it, "crystallized in a new type of science fiction, called *cyberpunk*." As Jameson envisions it, this new literature "is fully as much an expression of transnational corporate realities as it is of global paranoia itself: William Gibson's representational innovations, indeed, mark his work as an exceptional literary realization within a predominantly visual or aural postmodern production" (Jameson, 1991, p.38). Gibson's work is not only about "console cowboys" and the intrigue of

computer theft, it is about capitalism as symptom, technology as symptom; it is about, what Michael Heim has called, our "mental marriage to technology;" and finally, it is about the openness of possibilities that faith in technology brings to capitalist societies.[3] In the final analysis, this is why Jameson is so struck with cyberpunk; why he would apologize to his readers for not including a chapter on it in his own work. For Jameson, cyberpunk literature, in particular William Gibson's writing, is eerily consistent with his own pessimistic visions of postmodernism and late capitalism. Something to look forward to as we head into the next millennium. Space, as Gene Roddenberry says, may well be the last frontier, but cyberspace seems surely to be the next one.

Notes

1. See George Grant (1969) *Technology & Empire*, and Arthur Kroker (1984) *Technology And The Canadian Mind.*

2. See Stewart Brand (1987) *The Media Lab: Inventing the Future at MIT.*

3. For more on technology as symptom see Robert D. Romanyshyn's (1989) *Technology as Symptom & Dream.*

Bibliography

Film Literature Quarterley, Vol.18, No.1, pp.2-64. (1990). "BladeRunner Issue."

Ballard, J.G. (1973). *Crash.* New York: Farrar, Strauss & Giroux.

Baudrillard, Jean. (1981). *For A Critique Of The Political Economy Of The Sign.* Trans. Charles Levin. St. Louis, Mo.: Telos Press.

_____. (1983a). "The Ecstasy of Communication." *The Anti-Aesthetic.* Ed. Hal Foster. Port Townsend, Washington: Bay Press.

_____. (1983b). *Simulations.* Foreign Agent Series. Trans. Paul Foss, Paul Patton, and Phillip Beitchman. New York: Semiotext(e).

_____. (1987). "The Year 2000 Has Already Happened." *Body Invaders: Panic Sex in America.* Ed. Arthur Kroker and Marilouise Kroker. Trans. Nai-Fei Ding and Kuan Hsing Chen. Montreal: New World Perspectives.

Benedikt, Michael. (1991a). "Introduction." *Cyberspace: First Steps.* Ed. Michael Benedikt. Cambridge, Massachusetts: The MIT Press.

_____. (1991b). "Cyberspace: Some Proposals." *Cyberspace: First Steps.* Ed. Michael Benedikt. Cambridge, Massachusetts: The MIT Press.

Benford, Gregory. (1988). "Is Something Going On?", *Mississippi Review 47/48, Vol.16, No.'s 1&2,* pp.18-19.

Brand, Stewart. (1987). *The Media Lab: Inventing the Future at MIT.* New York: Viking Press.

Brin, David. (1988). "Starchilde Harold, Revisited:" *Mississippi Review 47/48, Vol.16, No.'s 1&2,* pp.23-27.

Bukatman, Scott. (1993). *Terminal Identity: The Virtual Subject In Postmodern Science Fiction.* Durham: Duke University Press.

Bullock, Allan, Oliver Stallybrass, and Stephen Trombley, eds. (1988). *The Fontana Dictionary Of Modern Thought.* London: Fontana Press.

Card, Orson Scott. (1977). *Ender's Game.* New York: A Tom Doherty Associates Book.

Csicsery-Ronay Jr., Istvan. (1991). "Cyberpunk and Neuromanticism." *Storming the Reality Studio: A Casebook of Cyberpunk and Postmodern Science Fiction.* Ed. Larry McCaffery. Durham: Duke University Press.

Debord, Guy. (1970). *Society of the Spectacle.* Detroit: Black & Red.

Eco, Umberto. (1986). *Travels In Hyperreality.* Trans. William Weaver. San Diego: Harcourt Brace Jovanovich, Publishers.

Featherstone, Mike. (1991). *Consumer Culture And Postmodernism.* London: Sage Publications.

Fekete, John, ed. (1987). *Life After Postmodernism.* New York: St. Martin's Press.

Fiske, John. (1989). *Understanding Popular Culture.* Boston: Unwin Hyman.

Fitting, Peter. (1991). "The Lessons of Cyberpunk." *Technoculture.* Eds. Constance Penley and Andrew Ross. Minneapolis: University of Minnesota Press.

Forty, Adrian. (1986). *Objects of Desire: Design & Society From Wedgewood To IBM.* New York: Pantheon Books.

Franklin, Ursula. (1990). *The Real World of Technology.* Concord: Anansi.

Frith, Simon, and Howard Horne. (1987). *Art into Pop.* London: Methuen.

Gibson, William. (1984). *Neuromancer.* New York: Ace Books.

_____. (1986). *Burning Chrome.* New York: Ace Books.

_____. (1987). *Count Zero.* New York: Ace Books.

_____. (1988). *Mona Lisa Overdrive.* New York: Bantam Books.

_____. (1993). *Virtual Light.* Toronto: Seal Books.

Glazer, Miriyam. (1989, Winter). "'What is Within Now Seen Without:' Romanticism, Neuromanticism, and the Death of the Imagination in William Gibson's Fictive World," *Journal of Popular Culture, V23:3,* pp.155-164.

Gordon, Joan. (1991). "Yin and Yang Duke It Out." *Storming The reality Studio: A Casebook of Cyberpunk and Postmodern Science Fiction.* Ed. Larry McCaffery. Durham: Duke University Press.

Grant, George. (1969). *Technology & Empire*. Concord, Ontario: Anansi.

Gunn, James, ed. (1988). *The New Encyclopedia of Science Fiction*. New York: Viking Penguin.

Haraway, Donna. (1985). "A Manifesto for Cyborgs: Science, technology and socialist feminism in the 1980's," *Socialist Review, 80*, pp.65-107.

Hardison, Jr., O.B. (1989). *Disappearing Through The Skylight: Culture and Technology in the Twentieth Century*. Harmondsworth: Penguin Books.

Harvey, David. (1990). *The Condition of Postmodernity*. Cambridge, MA.: Blackwell.

Hebdige, Dick. (1988). *Subculture: the meaning of style*. London: Routledge.

Heim, Michael. (1987). *Electric Language: A Philosophical Study Of Word Processing*. New Haven: Yale University Press.

_____. (1991). "The Erotic Ontology of Cyberspace." *Cyberspace: First Steps*. Ed. Michael Benedikt. Cambridge, Massachusetts: The MIT Press.

Hollinger, Veronica. (1991). "Cybernetic Deconstructions: Cyberpunk and Postmodernism." *Storming The Reality Studio: A Casebook of Cyberpunk and Postmodern Science Fiction*. Ed. Larry McCaffery. Durham: Duke University Press.

Huyssen, Andreas. (1986). *After The Great Divide: Modernism, Mass Culture, Postmodernism*. Bloomington and Indianapolis: Indiana University Press.

Innis, Harold A. (1950) *Empire & Communications*. Oxford: Oxford University Press.

_____. (1951) *The Bias of Communication*. Toronto: University of Toronto Press.

Jameson, Fredric. (1991). *Postmodernism: Or, The Cultural Logic Of Late Capitalism*. Durham: Duke University Press.

Kroker, Arthur. (1984). *Technology And The Canadian Mind: Innis/McLuhan/Grant*. Montreal: New World Perspectives.

Kroker, Arthur, David Cook. (1986). *The Postmodern Scene: Excremental Culture and Hyper-Aesthetics*. Culture Texts. New York: St. Martin's Press.

Kroker, Arthur, Marilouise Kroker, and David Cook. (1989). *Panic Encyclopedia.* Montreal: New World Perspectives.

Kroker, Arthur. (1993). *Spasm: Virtual Reality and Android Music, Electric Flesh.* Montreal: New World Perspectives.

Landon, Brooks. (1987, December). "Cyberpunk: Future so bright the gotta wear shades." *Cinefantastique,* pp.27-31).

Leiss, William. (1990). *Under Technology's Thumb.* Montreal: McGill-Queen's University Press.

Lyotard, Jean-Francois. (1984). *The Postmodern Condition: A Report on Knowledge.* Trans. Geoff Bennington and Brian Massumi. Minneapolis: University of Minnesota Press.

Marchand, Roland. (1986). *Advertising The American Dream: Making Way For Modernity, 1920-1940.* Berkley: University of California Press.

McCaffery, Larry. (1991). "Introduction: The Desert of the Real." *Storming The Reality Studio: A Casebook of Cyberpunk and Postmodern Science Fiction.* Ed. Larry McCaffery. Durham: Duke University Press.

McCracken, Grant. (1988). *Culture and Consumption: New Approaches to the Symbolic Character of Consumer Goods and Activities.* Bloomington and Indianapolis: Indiana University Press.

McLuhan, Marshall. (1951). *The Mechanical Bride: Folklore Of Industrial Man.* Boston: Beacon Press.

_____. (1964). *Understanding Media: The Extensions of Man.* New York: McGraw-Hill Book Company.

McLuhan, Marshal, and Bruce R. Powers. (1989). *The Global Village: Transformations In World Life And Media In The 21st Century.* New York: Oxford University Press.

Parfrey, Adam, ed. (1987). *Apocalypse Culture.* New York: Amok Press.

Pfeil, Fred. (1990). *Another Tale to Tell: Politics & Narrative In Postmodern Culture.* London: Verso.

Postman, Neil. (1985). *Amusing Ourselves to Death: Public Discourse in the Age of Show Business.* New York: Penguin Books.

_____. (1992). *Technopoly: The Surrender of Culture to Technology*. New York: Alfred A. Knopf.

Rheingold, Howard. (1991). *Virtual Reality*. New York: Summit Books

_____. (1993). *The Virtual Community: Homesteading on the Electronic Frontier*. Reading, Massachusetts: Addison-Wesley Publishing Company.

Romanyshyn, Robert D. (1989). *Technology as Symptom & Dream*. London: Routledge.

Rosenthal, Pam. (1991, January-March). "Jacked In: Fordism, Cyberpunk, Marxism," *Socialist Review, 21*, pp.79-103.

Rybczynski, Witold. (1983). *Taming The Tiger: The Struggle To Control Technology*. New York: Penguin Books.

Shirley, John. (1988). "Untitled." *Mississippi Review 47/48, Vol.16, No.'s 1&2*, pp.57-59.

Sorkin, Michael. (1992). "Introduction." *Variations on a Theme Park: The New American City and the End of Public Space*. New York: Noonday Press.

Stephenson, Neal. (1993). *Snow Crash*. New York: Bantam Books.

Sterling, Bruce, ed. (1988). *Mirrorshades: The Cyberpunk Anthology*. New York: Ace Books.

_____. (1989). *Islands In The Net*. New York: Ace Books.

_____. (1992). *The Hacker Crackdown: Law And Disorder On The Electronic Frontier*. New York: Bantam Books.

Stone, Allucquere Rosanne. (1991). "Will the Real Body Please Stand Up?: Boundary Stories about Virtual Cultures." *Cyberspace: First Steps*. Ed. Michael Benedikt. Cambridge, Massachusetts: The MIT Press.

Thomas, David. (1991). "Old Rituals for New Space: Rites de Passage and William Gibson's Cultural Model of Cyberspace." *Cyberspace: First Steps*. Ed. Michael Benedikt. Cambridge, Massachusetts: The MIT Press.

Turing, Alan. (1950). "Computing Machinery and Intelligence." *Mind 59 (October)*, pp.433-60.

Urry, John. (1988). "Cultural Change and Contemporary Holiday-making." *Theory, Culture & Society, 5(1)*.

Venturi, Robert, Denise Scott Brown, and Steven Izenour. (1977). *Learning From Las Vegas*. Cambridge, Massachusetts: The MIT Press.

Webber, Melvin M. (1964). "The Urban Place and the Nonplace Urban Realm." *Exploration into Urban Structure*. Ed. Melvin M. Webber et al. Philidelphia: University of Pennsylvania Press.

Williams, Raymond. (1977). *Marxism And Literature*. Oxford: Oxford University Press.

_____. (1980). "Utopia and Science Fiction," *Problems in Materialism and Culture*. London: Verso.