

Cyberpunk Visions of the Future City

By

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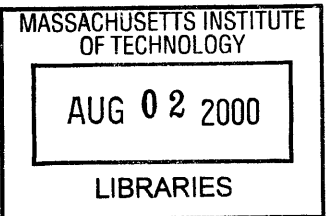
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## 0.0 ABSTRACT

As a future-oriented practice, urban design compels us to imagine, anticipate, design and plan our cities of tomorrow. In fact, 20<sup>th</sup> century urban planning has generated a number of influential visions of urban futures – from Howard, Le Corbusier, and Wright, to Fuller, Archigram, and Soleri. Yet for more than twenty years, urban planning has exhibited a conspicuous lack of critical projection about the future of urban life and form. This present lack of futurist vision is particularly remarkable when considering the rapid advancements in information technology (IT) that have begun to affect the nature of a wide range of interactions at the various scales of urban life. Of particular interest to urban planning and design is whether or not, and how, IT contributes to the transformation of social and spatial relationships.

The future consequences of how IT and other postmodern forces are changing cities have been explored by a subset of science fiction dubbed, Cyberpunk. Writers of cyberpunk fiction have extrapolated the present urban condition to expose a cautionary dystopian vision of cities and urban life in the near-future. Generally, cyberpunks envision the technologically-enhanced future city as an anarchic physical environment of exclusion, sprawl, surveillance, degradation, dematerialization, submission, and resistance. This study examines the images of a potential urban future, with particular attention placed upon the future of urban form, through detailed readings of cyberpunk fiction and film. While a far cry from the communitarian utopias of the previous century that have served as models for the cities we live in today, the cyberpunk vision of the future city does present urban planning and design with cautionary tales from which the profession may begin to examine its current practices and inform its designs for an electronically mediated future.

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## 0.1 ACKNOWLEDGEMENTS

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I would first like to thank my parents for ceaselessly encouraging my siblings and me to explore the things about this world that genuinely interest us, no matter how unconventional they may appear. It is our parent's imagination that gave me the confidence to write an MCP thesis on Cyberpunk, that encourages my sister to be a rock star, and that allows my brother to not see a contradiction in preparing to be a conservative environmental lawyer. It is their open mind, optimism and creativity that is reflected in these pages.

I would also like to acknowledge the contribution of my advisor, Professor Dennis Frenchman, whose intellect, energy and curiosity have greatly inspired and motivated this project. I will never forget the coincidence of walking into his office with my thesis proposal in hand to find him preparing slides that depicted almost identical images of the 1939 World's Fair Futurama and contemporary American cities - illustrating how unmistakably influential past "visions of the future" have been in shaping our urban realities. The analytical vision of my thesis reader, Professor Lawrence Vale, has also been invaluable, particularly to my understanding of the potential implications of information technologies upon the realities of the urban experience. My interest in media and the city has grown out of the stimulating *Imaging the City* seminar, which he led during the Fall of 1998, my first semester at MIT.

Finally, I must also thank all of the friends and colleagues who graciously shared with me their insights, their support ... and their books.

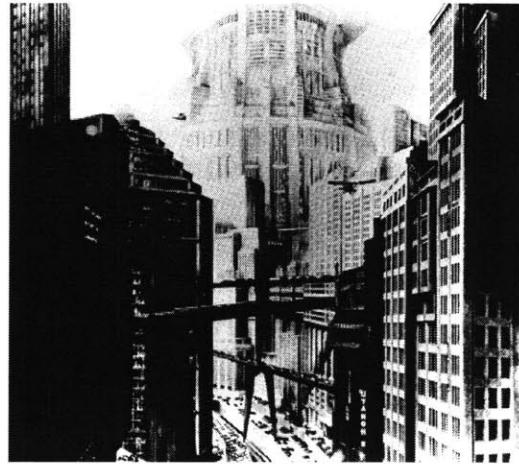
## 0.2 TABLE OF CONTENTS

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1.0	<b>INTRODUCTION</b>	5
2.0	<b>AN EMERGING URBAN CONDITION</b>	17
3.0	<b>PHYSICAL ZONES OF THE CYBERPUNK CITY</b>	45
4.0	<b>CYBERPUNK VIRTUAL SPACE</b>	73
5.0	<b>CONCLUSION: directions for urban design</b>	95
6.0	<b>BIBLIOGRAPHY</b>	112







1.1

### 1.1 VISIONS OF THE FUTURE CITY

Urban design is the practice of anticipating, planning and designing places for both the near and far future. It is a future-oriented and imaginative endeavor where we have the responsibility and skill to postulate ideal urban futures. As a result, urban planning has seen a great number of visions for “cities of tomorrow” by some of the profession’s greatest thinkers. Howard’s Garden City, Le Corbusier’s Radiant City, and Wright’s Broadacre City all postulated an ideal landscape for the flourishing of societies. This century has seen many of these visions realized in one indefinite form or another, as these models provided architects, urban designers and planners with an image of the ideal city (Hall, 1988). In seeing that past visions of an urban tomorrow historically have been influential in the city building professions, what potentially influential visions and images exist today for the future city, and what do these visions postulate as our urban future?

Not since the surge of modernist visions of the future city emerged during the 1930s (GM’s 1939 Futurama, Le Corbusier’s Radiant City, Fritz Lang’s “Metropolis”[Fig. 1.1]) and then again during the 1960s (Archigram, the Metabolists, Kubrik’s “Clockwork Orange”) has urban design and planning seen a powerful vision of the future. John Friedmann, during a lecture at MIT (1999) entitled “In Defense of Utopian Thinking”, speculated that this lack of futurist vision in architecture and urban planning is perhaps due to the current lack of a powerful, distressed social condition to which we must respond. In the past, demanding social conditions called for the fueling of imaginations to conceive of a better future than

that of the present (and also extrapolate a disastrous future if the given utopia was not achieved). Such was the case with the Industrial Revolution-, the Depression- and the Vietnam War-era projections of future cities.

It is also possible that previously unimaginable advances in information technology (IT) during the past two decades have confounded strong visions of the future city. With the rapid rate of insertion of new IT into mainstream society, planners and designers have not been able to grasp the possible consequences of such advancements and their relevance to urban life. This is particularly true since mainstream assumptions regarding IT tend to be utopian in thinking that computers and technology will unconditionally facilitate, enhance and improve our lives. Notwithstanding, in recent years there has emerged a planning literature that deals with the relationship between IT and the city (Castells, 1996, 1997; Graham and Marvin, 1996; Mitchell, 1995, 1999). Mitchell's most recent work, *E-topia* (1999), serves as one of the few texts that delineate the implications of IT on the design of the city. Since the mid-1980s, however, a subgenre of science fiction – cyberpunk – has been discursively exploring the future of the city by extrapolating ways in which IT may transform the social, political, economic and spatial aspects of society.

**cyber:** relates to cybernetics – the science of communications, control and feedback and to the merger of humans and machine components (creating cyborgs).

**punk:** situates the voice as coming from a rough, alternative edge, a self-marginalization in opposition to dominant viewpoints. (Warren, Warren, Nunn and Warren, 1998)

The cyberpunk subgenre distinguishes itself from the more general realm of science fiction (SF) through its setting and focus. Influenced by Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1968) and its cinematic interpretation, "Blade Runner" (1982), the cyberpunk narrative is set in the dark, hyper-urban near-future; this is in contrast to the typical SF, outer space, far-future. Cyberpunk's focus is on the social appropriation of technology and its consequences, as opposed to the mechanical specifics of technology so carefully delineated in standard SF. The recurring cyberpunk themes that emerge from an urban life engulfed in a variety of technologically enhanced cultural systems include (the increasingly familiar), "...erosion of public space, surveillance spaces, urban-regional restructur-

ing, rise in dual-city economies, soft cities, dematerialization, regulation and resistance.” (Kitchin and Neale, 1999). More specifically:

In Cyberpunk... there is usually a “system” which dominates the lives of most “ordinary” people, be it an oppressive government, a group of large, paternalistic corporations or a fundamentalist religion. These systems are enhanced by... “information technology” (computers, the mass media), making the system better at keeping those within it, inside it. Often this technological system extends into its human “components” as well, via brain implants, prosthetic limbs, cloned or genetically engineered organs, etc. Humans themselves become part of “the Machine”. This is the “cyber” aspect of Cyberpunk.

However, as in any cultural system, there are always those who live on its margins, on “the Edge”: criminals, outcasts, visionaries, or those who simply want freedom for its own sake. Cyberpunk literature focuses on these people, and on how they turn the system’s technological tools to their own ends. This is the “punk” aspect of Cyberpunk. (FAQ, alt.cyberpunk, 1999)

*Neuromancer* appeared in 1984 and helped define and characterize cyberpunk with its dystopian vision of urban life in the future, and established its author, William Gibson, as the seminal writer of cyberpunk. This novel became the first part of the subsequent *Cyberspace Trilogy* (*Neuromancer* [1984], *Count Zero* [1986], *Mona Lisa Overdrive* [1988]) that documents the near-future world of physical landscapes such as “the Sprawl”, a huge, urbanized area that covers much of the Eastern United States, and “the Matrix”, a virtual datascape better known as cyberspace. In Neal Stephenson’s *Snow Crash* (1992), the other definitively urban cyberpunk novel, the narrative is set among decaying highways and “burbclaves,” which are exclusively insular gated communities, and the “Metaverse,” a virtual urban geography. Thus, by emerging concurrently with the Internet and other information technologies, cyberpunk appropriated technological advances into its vision of the future and, in seeing a hyper-urbanized and virtual dual future landscape, cyberpunk extrapolated present urban conditions to consequent possible scenarios.

### 1.2 OBJECTIVE OF STUDY

Since the advent of information technologies (IT) in the early 1970s, and its commercialization and explosive growth in the past ten years, there has been a considerable lack of

projection on urban futures by those who design the city. In order to understand new conceptions on the city, I examine how cyberpunk literature and film – genres that have been specifically considering the future implications of information technology on urban life from outside the realm of urban design and planning – envision the future city. Ultimately, I am looking to see how the cyberpunk visions of the future city relate to current trends in urban development and how these can inform urban design. My research thus investigates the following questions:

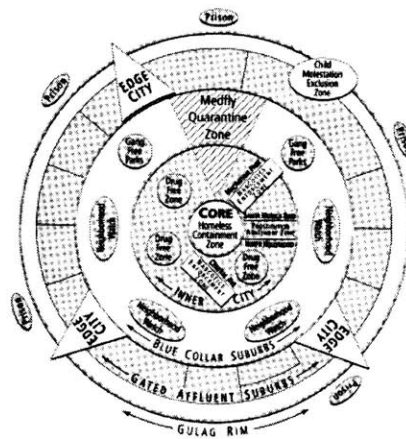
- *How does cyberpunk envision the future of the city?*
- *How does this vision relate to present urban development processes?*
- *How can cyberpunk visions of the future city inform current practice in urban design and planning?*

### 1.3 SIGNIFICANCE

Cyberpunk authors, such as William Gibson and Neal Stephenson (the two most widely associated with decidedly urban visions in cyberpunk), provide powerful narratives of how society, space and cyberspace are interconnected and illuminate the possible consequences of current trajectories of development (Kitchin and Neale, 1999). As the literary concomitant of much cyberculture (Burrows, 1997), Cyberpunk explores the nascent parallel realms of the physical city and cyberspace (Davis, 1992; Featherstone, 1995) by analyzing present urban, economic and political geographies and projecting them into the near future.

Burrows (1997) contends that, "...the most vivid depictions of this dualism are currently not found within the social sciences but within the fictional world of cyberpunk, paradigmatically in the novels of William Gibson, but probably most convincingly in Stephenson's *Snow Crash*." In fact, Burrows (1997) goes as far as stating, perhaps too drastically, "...that one gets a clearer analytic understanding of contemporary urban processes from a reading of Gibson and Stephenson than one does from a reading of Sassen or Castells." The essence of Burrows argument, however, is not as extreme as one might initially believe. A recursive relationship between cyberpunk and urban thinking does exist, indisputably be-

tween Gibson's and Mike Davis' work (Burrows, 1997; Warren, Warren, Nunn and Warren, 1998; Davis, 1990, 1992, 1998). Davis' Los Angeles as depicted in *City of Quartz* appears in Gibson's *Virtual Light* which, along with *Neuromancer* and other cyberpunk works, inspired Davis' extrapolative, concentric ring map of a future Los Angeles – a postmodern, updated version of Burgess' 1920s Chicago model (Fig. 1.2):



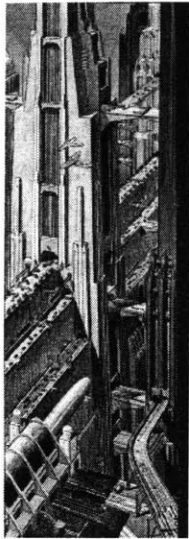
los angeles: 'the ecology of fear' 1.2

There also exists parallels between themes expressed in the urban landscapes of cyberpunk fiction and current discourse on "postmodern urbanism". Dear and Flusty (1998) introduce their article that proclaims a break into "Postmodern Urbanism" with a quote from Gibson's *Idoru* (1996) and conclude by listing the four broad themes that comprise postmodern urbanism – 1) globalization and world cities, 2) dual cities as a consequence of social polarization, 3) altered spaces, fragmentation and cultural hybrids, and 4) cybercities – all of which are predominant themes in cyberpunk fiction. Moreover, Jameson (1991) states that cyberpunk provides a cognitive space through which we can understand the postmodern condition and Bukatman (1993) contends that cyberpunk provides a postmodern mapping of future urbanism, "...a mapping of compacted, decentered, highly complex urban spaces." Kitchin and Neale (1999) see examining cyberpunk writings as telling because, "...they hold a mirror to current postmodern spatiality and reveal potential future spatiality." Most importantly, they argue, cyberpunk provides "...dystopian fables of what society may become if it follows certain paths and opens up cognitive spaces to contemplate those futures."

Certainly, the cyberpunks' use of disciplined extrapolation to generate future visions is nothing new. Historically, visions of the urban future have been inspired and influenced by the times' technological advances – neither the Radiant City nor Broadacre City could have been conceived without the automobile. Therefore, through its particular futuristic-urban concerns, cyberpunk works provide urban designers and planners, who are engaged in a future-oriented profession, with legitimate visions of urban futures that are nevertheless related to the tradition of envisioning cities of tomorrow. Moreover, as a realm outside of the planning profession, cyberpunk works can not only serve to inform current thought on urban futures but also broaden the sphere of that thinking.

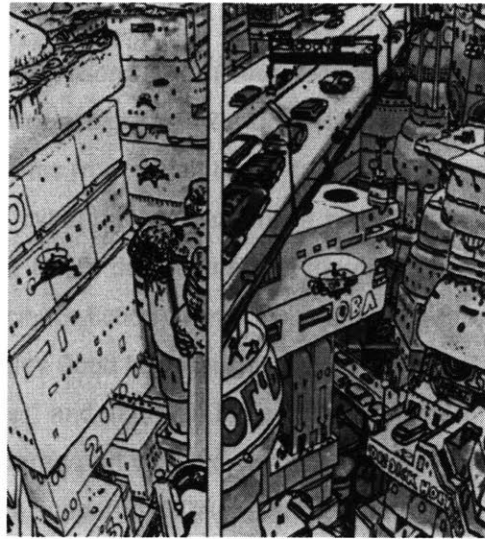
The vision of the future city manifested by cyberpunk writers depicts a world where materiality reciprocates with virtuality. Much like today, two distinct and spatially defined worlds – one physical, the other virtual – co-exist and interrelate via the human medium. How does the post-industrial, information-age city function? How is it structured and shaped? While urban theorists are beginning to formulate an idea of the direction urban development may head in the coming decades, cyberpunk novels have already painted a vivid, though dystopian, image of the cities of the near future.

Cyberpunk narratives describe a near future that exists within one or two generations from the present. In fact, much cyberpunk fiction is set only twenty or thirty years in the future in order to shed light upon and critique present social trends. The proximity of time established in contemporary science fiction also serves to stress the state of accelerated social change and permanent transition that shapes our current world, especially in the realm of information technology (Jenkins, 1999). (“Blade Runner”, for example, is set in the Los Angeles of 2019 and the *Cyberspace Trilogy* takes place over a fourteen-year time span in the near-future.) The proximity in time of the urban future in the cyberpunk narrative suggests the physical elements that set the stage for the protagonists' cyber-adventures are either present today or may be present tomorrow. Particularly since the cyberpunk genre began extrapolating the present into the future roughly fifteen years ago, many of the urban typologies present in Gibson and Stephenson's vision of the future city are becoming more evident today. It is not surprising, then, to discover that many of the depictions of the



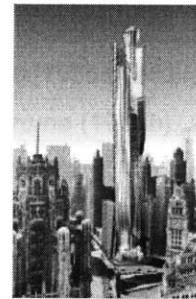
1.3

"daringly, distinctively modern," GE ad, *Fortune*, 1931



1.4

"the long tomorrow" by moebius and dan o'bannon (marvel comics). a major influence on the design of "blade runner"



1.5

krueck + sexton skyscraper 7 south dearborn, chicago (below)

future city appear quite familiar. This is because our cities do, in fact, resemble the then far-flung, early 20<sup>th</sup> century visions of the hyper-dense modern city composed of mile high skyscrapers, aerial bridges, and fantastic airships. (Fig. 1.3, 1.4, 1.5).

The cyberpunk authors provide detailed descriptions of the social, physical and virtual realms thus affording this study with a spectrum of observations about the future of urban life, culture and space. Gibson's narratives are set in the Eastern United States, with some juxtaposition of this geography to that of Asian and European cities, while Stephenson's and Dick's narratives unfold along the West Coast of the United States. Although this analysis may seem narrowly focused both in sources and geographies, these science fiction writers offer a powerful and portentous glance into the possible future consequences of current development trends. These visions can serve urban designers and planners as both a forewarning of future consequences and/or as a first step in considering the so-called "...network-mediated metropolis of the digital electronic era." (Mitchell, 1999).

#### 1.4 METHODOLOGY

This thesis is the product of a combined analysis of Neal Stephenson's *Snow Crash* (1992)



and William Gibson's *Cyberspace Trilogy* (*Neuromancer* [1984], *Count Zero* [1986a], *Mona Lisa Overdrive* [1988]), *Virtual Light* (1992), *Idoru* (1996), and *Burning Chrome* (1986b), a collection of his short stories from which I refer to *Johnny Mnemonic* (1982) and *Burning Chrome* (1981). Of the cyberpunk writers, these two authors offer the most descriptive images of space and the future development of the city.<sup>1</sup> Both Gibson and Stephenson build on Philip K. Dick's science fiction classic, *Do Androids Dream of Electric Sheep?* (1968), the book upon which Ridley Scott based his film "Blade Runner" (1982). Many cyberpunk writers cite "Blade Runner" and its urban imagery as a major influence in their work (Fig. 1.4). Though not considered part of the cyberpunk genre, I have included this book and film as part of my study in support of Gibson's and Stephenson's work. I have also incorporated cinematic images and themes from "The Fifth Element" (1997) as they serve to reinforce and clarify some of the cyberpunk literary images. I thus analyze these literary and cinematic works with particular attention to images of urban terrestrial geographies, social processes, and "virtual geographies" (i.e. cyberspace geographies).

### 1.5 ORGANIZATION OF THESIS

I first begin by exploring the three levels of description through which Gibson and Stephenson construct their vision of the future city. The first level deals with the trends that create a recognizably postmodern social context for the authors' projected future city, *An emerging urban condition*. The second level deals with the authors' vision of what physical and spatial expressions, consequences, or implications they believe a postmodern condition will presumably impose upon the urban landscape, the *Physical zones of the cyberpunk city*. And thirdly, I explore the influential virtual worlds that these authors conceptualized even before the existence of the now ubiquitous World Wide Web, *Cyberpunk virtual space*.

I briefly introduce these themes here, and I will expand upon them more fully in the subsequent chapters. The cyberpunk vision of the city arguably presents an emerging future urban condition through the following eight themes:

- **placelessness**: The placeless city is the mass produced, standardized city that emerges

as a result of a “bottom line” philosophy of city building and under the rubric that “what thrives in one place will thrive in another.” Places lose their identity and have no unique image - every place looks, feels and behaves the same.

- **informality:** This concept characterizes the nature of the underground systems, such as black markets or precarious settlements, within which the marginalized groups of society must survive. Informality leads to a life led outside the prescribed ‘system’ of society – that is, outside of the dominant economic and social structures maintained by those in power. People living in informal systems must contend with social, economic and physical precariousness in their lives.
- **dual cities:** the economic social condition is polarized into extreme wealth and extreme poverty which results in two opposing urban experiences that unfold over two disengaged, juxtaposing urban landscapes.
- **cultural hybrids:** These are bi-products of the already-established multicultural city. Cultural identities merge to constitute new hybrid identities, lifestyles and environments. A premature version of a cultural hybrid could be Manhattan’s ‘chino-latino’ restaurants or the murals that pervade Latino neighborhoods in American inner cities.
- **surveillance spaces:** Due to sophisticated information and communications technologies, and with information as the most valuable commodity of an information-based economy in an information-obsessed society, concealed supervision of all things is pervasive.
- **privatization of public functions:** Local governments and national sovereignty abdicate to the global interdependence run by corporate powers, the consequences of which become the abandonment of, and thus the private management and provision of, formerly public functions.
- **environmental degradation:** After an implied nuclear fallout and decades of unabated pollution and illegal dumping of hazardous materials, the natural environment is irreversibly damaged. Humanity must either adjust to its habitation spaces accordingly, which it does, or seek life in “off-world” colonies, which it also does. Both of these adaptations to a degraded environment affect the form and function of the city.
- **abandonment:** Other occurrences that help explain the abandoned built environment include space colonization, the fast pace of technological advancement that does not leave time for the rehabilitation or adjustment of the old, and decentralization of populations as the economic order globalizes. Economy-generating information flows do not have a multiplier effect over the physical world and so the information economy does not rectify the post-industrial city’s decay.

These eight themes coincide with postmodernism theories on space and the city (Baudrillard, 1983; Harvey, 1990; Jameson, 1991; Kitchin and Neale, 1999; Soja, 1996) and provide a basis from where we can understand the cyberpunks’ vision of future urban form. The built form in cyberpunk is inevitably intertwined with the qualities of the emerging urban condi-

tion. The cyberpunk urban form is composed of seven characteristic elements. These are as follows:

- **conurbation:** Urban settlements merge into a continuous network of built form along both coasts of the United States to create sprawling, polycentered mega-cities. This sprawl is denser and more interconnected than the late 20<sup>th</sup> century suburban sprawl we know of today due to, presumably, a migratory movement from the heartland to the seashores.
- **mega-structures:** Fuller's geodesic domes and Soleri's arcologies are the cyberpunk interpretation of the mega-structures we presently see in both the urban and suburban landscapes. Geodesic domes serve to protect entire cities from the earth's contaminated-beyond-repair atmosphere while massive corporate arcologies and mile-high skyscrapers reflect the omnipotence of multi-national corporations.
- **outlaw zones:** These are impounded enclaves of poverty that are left to their own subsistence and survival (Davis, 1990; Soja, 1996). They are the physical concomitants of social and economic isolation and informality where people are left to live however possible. Thus, the extremely poor half of the urban population that ultimately lives in the outlaw zones must ascribe to informal underground lifestyle systems that contribute to a deplorable urban landscape.
- **rubble rings:** These are rings of industrial wasteland and suburban abandonment that both surround the dense and sprawling conurbations and serve as boundaries of decay to separate the outlaw zones from the other zones contained in the mega-cities.
- **burbelaves:** These gated communities are the hypersimulated and specialized, yet mass-produced, residential neighborhoods where extreme wealth isolates itself from the extreme poverty of the outlaw zones.
- **preservation zones:** The pervasiveness of placelessness in the physical environment makes history a scarce good – most pronouncedly in Asia. Relentless renovation and preservation is imposed upon “historically significant” areas of the city.
- **space colonies:** Space colonies are places of escape from the grimness of life on earth. Primarily carefree places for recreation and consumption, space colonies embody the term “simulacra” in their reproduction of the most highly regarded places on earth for the sole purpose of stimulating mass consumption.

The physical zones of the cyberpunk city also can be identified in increasingly familiar urban elements such as gated communities, brownfields, and “Third World” squatter settlements. Certainly, identifying present-day analogies for the cyberpunk urban condition and form is not difficult. The emerging urban condition that I will now explore in more detail is increasingly familiar in the existing hyper-urban environments of places like Los Angeles, Singapore, and Sao Paulo.

While in the physical world we see an increasingly fragmented and dispersed urban form and social order, virtual spaces in cyberpunk are characterized their ability to concentrate and connect information and functions. Gibson's "Matrix" and Stephenson's "Metaverse," both of which preceded the Internet's introduction into popular culture and commerce, provide representations of environments wherein people can non-physically interact with information and with each other. While the Matrix is more of an immersive cyber-datascape, the Metaverse (as its name suggests) is an expansive, simulated urban landscape in digital space. These virtual spaces provide an interesting realm through which to examine the cyberpunk physical spaces, and vice versa.

By exploring the cyberpunk narratives for their perspectives on the future urban condition, physical structure, and the virtual realm, this thesis will relate the lessons of a predicted dystopian future to forces in our urban present. In doing so, I hope to provide the urban design profession with informed considerations for shaping the future of city development.

<sup>1</sup> Other science fiction (and cyberpunk) authors are not nearly as descriptive about the spatial and urban dimensions of the future as Gibson and Stephenson.

## 2.0 AN EMERGING URBAN CONDITION

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### 2.1 PLACELESSNESS

Taking his cue from mass-produced cities like Houston, that grow in the absence of regulatory controls and planning and employ a “bottom line” philosophy of city building, Stephenson makes placelessness a central subtext in *Snow Crash* through detailed observations of the process and outcome of cookie-cutter urbanism. Ultimately, “...Everything looks the same in America, there are no transitions” (Stephenson: 105). Michael Sorkin concurs with Stephenson when he states that, “What’s missing in this city is not a matter of any particular building or place; it’s the spaces in between, the connections that make sense of forms” (1992: xii). Gibson also provides hints as to the consequences of mass-producing the built environment through “coffin racks”, a transient building typology that pervades his urban landscapes.

Stephenson expresses his idea of placelessness most provocatively through his burbclaves, otherwise referred to as FOQNE’s (Franchise-Organized Quasi-National Entities). As indicated by their name, burbclaves are franchised neighborhoods analogous to the gated communities that began to dot the American landscape some twenty years ago. Each burbclave class, or franchise type, has a very specific identity, form and street layout that is replicated endlessly over the landscape and distinguished according to its name and franchise number, i.e. New South Africa Franchulate #153 (301). As Hiro Protagonist, the central character in Stephenson’s *Snow Crash*, navigates through the standardized burbclave landscapes of Southern California we see how his job as a pizza “Deliverator” is made considerably more simple by the predictability of the franchise layout.

Big slowdown at the intersection of CSV-5 and Oahu Road, per usual, only way to avoid it is to cut through The Mews at Windsor Heights. TMAWHs all have the same layout. When creating a new Burbclave, TMAWH Development Corporation will chop down any mountain ranges and divert the course of any mighty rivers that threaten to interrupt this street plan - ergonomically designed to encourage driving safety. A Deliverator can go into a Mews at Windsor Heights anywhere from Fairbanks to Yaroslavl to the Shenzhen special economic zone and find his way around. (12) (Figure 2.1)

Though built according to a standard blueprint, the franchised neighborhoods are not faceless. Image, more so than substance, reigns supreme in property value and desirability.

## 2.0 AN EMERGING URBAN CONDITION



green hillsides north of los angeles have been 2.1  
cleared, leveled, graded, and platted.

As Jameson states, "...depth is replaced by surface..." (1984: 62). Fire hydrants, street signs, street names, mailboxes and housing types are designed according to a predetermined set of desired values that appeal to the appropriate set of desired residents. A pastiche of nostalgic computer-designed simulacra tries to capture a selectively remembered past.<sup>1</sup>

Approaching the terminus of Cottage Heights Road, where it tees into Bellewoode Valley Road, he espies a fire hydrant. TMAWH fire hydrants are numerous, for safety, and highly designed, for property values... They are brass, robot-polished every Thursday morning, dignified pipes rising straight up from the perfect, chemically induced turf of the Burbclave lawns, flaring out to present potential firefighters with a menu of three possible hose connections. They were designed on a computer screen by the same aesthetes who designed the Dyna-Victorian houses and the tasteful mailboxes and the immense marble street signs that sit at each intersection like headstones. Designed on a computer screen, but with an eye toward the elegance of things past and forgotten about. Fire hydrants that tasteful people are proud to have on their front lawns. Fire hydrants that the real estate people don't feel the need to airbrush out of pictures. (30)

In what Baudrillard sees as a world of "...Dramatic implosion," in which "...once autonomous realms of society and culture [implode] into each other, erasing boundaries and differences..." (Kellner: 297) it is not surprising that the same burbclave layout is implemented locally, regionally, nationally, and even internationally. The physical environment is eventually incorporated into the globalization of culture with placelessness as its ultimate outcome. In explaining the ubiquity of franchised neighborhoods (also referred to as franchise ghettos) and other mass-produced phenomena, Stephenson uses the virus as a metaphor to explain the pervasiveness of placelessness:

The franchise and the virus work on the same principle: what thrives in one place will thrive in another. You just have to find a sufficiently virulent business plan,

## 2.0 AN EMERGING URBAN CONDITION

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condense it into a three-ring binder – its DNA – xerox it, and embed it in the fertile lining of a well-traveled highway, preferably one with a left-turn lane. Then the growth will expand until it runs up against its property lines (190).

[In the past]...if you did enough traveling, you'd never feel at home anywhere. [Today]... when a businessman from NJ goes to Dubuque, he knows he can walk into a McDonald's and no one will stare at him. He can order without having to look at the menu, and the food will always taste the same..."No surprises" is the motto of the franchise ghetto... subliminally blazoned on every sign and logo that make up the curves and grids of light that outline the Basin...

The people of America, who live in the world's most surprising and terrible country, take comfort in that motto. Follow the loglo outward, to where the growth is enfolded into the valleys and the canyons, and you find the land of the refugees. They have fled from the true America, the America of atomic bombs, scalpings, hip-hop, chaos theory, ... drive-by's, cruise missiles, ... gridlock, motorcycle gangs, and bungee jumping. They have parallel-parked their bimbo boxes in identical computer-designed Burbclave street patterns and secreted themselves in symmetrical sheetrock shitholes with vinyl floors and ill-fitting woodwork and no sidewalks, vast house farms out in the loglo wilderness, a culture medium for a medium culture (191).

It is both simple and safe to live in a mass-produced environment (Fig. 2.2). Rem Koolhaas calls the mass-produced landscape the Generic City (1995). "It is the city without history. It is big enough for everybody. It is easy. It does not need maintenance. If it gets too small it just expands. If it gets old it just self-destructs and renews" (1995: 1250). Predictability becomes a good thing when contrasted to the recklessness of the world that lies outside of controlled environments like burbclaves. In the second part of this chapter, I explore more thoroughly the juxtaposition between controlled and entropic zones, such as burbclaves and outlaw zones, into which, according to cyberpunk, the future physical urban landscape will be fragmented.

Gibson's "racks" also serve to evoke the alienating consequences of placelessness. In the *Cyberspace Trilogy*, transient lives are lived from one rack to another. Racks take on different forms – hotels, condos – and essentially refer to modular architecture that can respond flexibly to necessary functions. Case, Gibson's protagonist in *Neuromancer*, is emblematic of the transient and marginalized set that form part of the future urban condition. While exiled in Chiba City, Case lives in and out of the cheapest places, or racks, like the appropriately named Cheap Hotel. As the socio-economic antithesis of burbclaves, coffin



## 2.0 AN EMERGING URBAN CONDITION

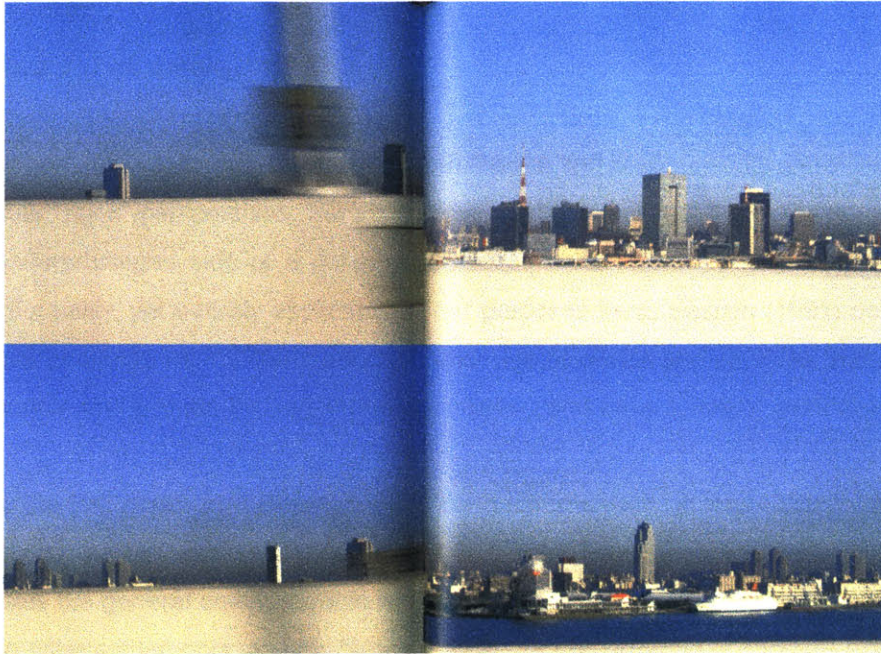
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the mass produced city: rows of new tract houses in palm city, florida

2.2

## 2.0 AN EMERGING URBAN CONDITION



placelessness:  
the generic city 2.3

racks are just as their name would suggest, "...white fiberglass coffins...racked in a framework of white scaffolding. Six tiers of coffins, ten coffins on a side" (19). The coffins themselves are "...three meters long, the oval hatches a meter wide and just under a meter and half tall" (20). But like burbclaves, racks are a omnipresent element of the future urban form and presumably exist in all cities around the world – as much a part of Chiba City as of Baltimore:

The medical team Molly employed occupied two floors of an anonymous condo-rack near the old hub of Baltimore. The building was modular, like some giant version of Cheap Hotel, each coffin forty meters long (71)... The kind of building where they throw up a framework and commercial tenants bring their own modules, plug-ins. Like a highrise trailer camp, everything snaked with bundled cables, optics, lines for sewage and water (145).

The condo/coffin racks are aspects of placelessness that do not afford people with a sense of stability or safety (Fig. 2.3). Unlike burbclaves, racks – both in purpose and physical composition – represent the disjointed and unstable nature of the people and environments in the lower half of a socially divided society. Yet, coffin racks also respond to a transient culture of part-time and temporary, which in a sense, also contribute to the informal facets of urban life. Informality is another powerful theme of the emerging urban condition as illustrated by cyberpunk.

### 2.2 INFORMALITY

Informality is a consistent theme in both Gibson and Stephenson's narratives, partly due to their "punk" perspectives, but also because of the fact that their stories unfold within the underprivileged side of a polarized society.<sup>2</sup> With reference to the economic aspect of informality, yet entirely applicable to our purposes here, Sassen (1991) defines the informal economy as, "...The production and sale of goods and services that are...produced and/or sold outside the regulatory apparatus...and other types of standards" (288).

In the first pages of *Neuromancer*, Gibson comments, "...It was difficult to transact legitimate business with cash in the Sprawl; in Japan, it was already illegal" (6). This encapsulates the general settings within which cyberpunk novels unfold. Decayed environments, squatter settlements, and the "black market", or underground economies and lifestyles, are predominant images and themes in cyberpunk. Place is inextricably tied to informality and thus its associated quality, as conceived by Gibson and Stephenson, expresses this condition of social marginalization. Outlaw zones, which I discuss in chapter 3, are the physical concomitants of the informal social condition. In Gibson's work, places like the Bridge, Dog Solitude and the Hypermart contain informality while in Stephenson's *Snow Crash*, the landscapes of Hiro Protagonist show how marginalized populations appropriate once formal space in order to carry out their precariously survivalist day-to-day life.

Camping for survival is an underlying theme for the inhabitants of Gibson's future landscapes (Fig 2.4). All sorts of discarded materials, land, buildings, and infrastructure – largely disregarded in the information economy of late capitalism – become fodder for the informal systems of the socially and economically bifurcated future. Places of informal habitation include settlements like the "...Ramshackle pontoon towns tethered off Redondo [Beach]" (1986a: 4); Dog Solitude, a post-industrial, dysfunctional landfill (1988); the leashed Lo Tek settlement under the dome of a geodesic in *Johnny Mnemonic* (1986b); the Bridge, a refugee-invaded encampment on San Francisco's Bay Bridge in *Virtual Light* (1993); and the Hypermart, a midtown Manhattan agglomeration of vendor stalls housed in an abandoned building off Madison Avenue. Below, Gibson describes the level of complexity and

the sense of disorientation conveyed by informal environments like, in this particular case, the Hypermart.

Bobby nodded, his eyes confused by the thousand colors and textures of the things in the stalls, the stalls themselves. There seemed to be no regularity to anything, no hint of any central planning agency. Crooked corridors twisted off from the area in front of the espresso booth. There seemed to be no central source of lighting either. (1986a: 146)

Gibson stresses the informal status of the Hypermart by indicating that there seemed to be "...no regularity to anything, no hint of any central planning agency...no central source of lighting either." The Hypermart is a place entirely outside of the grid of mainstream urban activity. The informal sector functions as an isolated system set outside of the greater social order from which it originally spawned.

The Bridge in *Virtual Light* serves as the apotheosis of Gibson's notion of, first, the spontaneity behind the formation of informal settlements and, second, how the informal sector is contained within, yet fully independent from, formal urban activity:

The integrity of its span was rigorous as the modern program itself, yet around this had grown another reality, intent upon its own agenda. This had occurred piecemeal, to no set plan, employing every imaginable technique and material. The result was something amorphous, startlingly organic. At night, illuminated by Christmas bulbs, by recycled neon, by torchlight, it possessed a queer medieval energy... Its steel bones, its stranded tendons, were lost within an accretion of dreams: tattoo parlors, gaming arcades, dimly lit stalls stacked with decaying magazines, sellers of fireworks, of cut bait, betting shops, sushi bars, unlicensed pawnbrokers, herbalists, barbers, bars. Dreams of commerce, their locations generally corresponding with the decks that had once carried vehicular traffic; while above them, rising to the very peaks of the cable towers, lifted the intricately suspended barrio, with its unnumbered population and its zones of more private fantasy (1992: 69-70).

Gibson emphasizes the informality of the Bridge in depicting the structure of the bridge itself as being "...lost within an accretion of dreams..." wherein an "...unnumbered population..." inhabits an "...intricately suspended barrio." Through a gradual and spontaneous "...mode of accretion..." a vehicular bridge is transformed into a "...secondary structure..." that concentrates residential, commercial and recreation spaces to form a self-sustaining system that operates independently from the formal social system (71).



## 2.0 AN EMERGING URBAN CONDITION



2.4



2.5

In the cyberpunk urban future, as in places like the squatter settlements of the developing world or the decaying neighborhoods of the American city, informality is a social condition that is characterized by unregulated and improvised action and social, economic and physical isolation (Fig. 2.5). Informality is also a survivalist condition that relies on the “adaptive re-use”, in a sense, of the vestiges of progress (and decline). Both Gibson and Stephenson concur in describing the same process of informal, adaptive re-use of abandoned post-industrial urban elements by the socially, economically, and physically isolated populations of the future urban social structure. Gibson does this most vividly through the Bridge while Stephenson recruits Hiro Protagonist as our guide to the informal sector of the future.

Hiro Protagonist and Vitaly Chernobyl, roommates, are chilling out in their home, a spacious 20-by-30 in a U-Stor-It in Inglewood, California. The room has a concrete slab floor, corrugated steel walls separating it from the neighboring units, and - this is a mark of distinction and luxury - a roll-up steel door that faces northwest, giving them a few red rays at times like this, when the sun is setting over LAX... But there are worse places to live. There are much worse places right here in the U-Stor-It. Only the big units like this one have their own doors. Most of them are accessed via a communal loading dock that leads to a maze of wide corrugated-steel hallways and freight elevators. These are slum housing, 5-by-10s and 10-by-10s where Yanoama tribespersons cook beans and parboil fist-fulls of coca leaves over heaps of burning lottery tickets (1992: 19).

The U-Stor-It is simply an extrapolated adaptation of typical tenement housing which, essentially, has not changed since the days of the Industrial Revolution. Such buildings continue to harbor a microcosm of poor immigrant life in overcrowded, unregulated, unsafe, and overwhelmingly inadequate housing conditions. Davis attributes this type of inhuman housing conditions to resulting in fire incidents that he describes in *Ecology of Fear* (1998) as postwar Los Angeles’s “tenement holocausts” (112-122). Since at least the 1970s, primarily immigrant families from Mexico and Central America have become the victims of

## 2.0 AN EMERGING URBAN CONDITION

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slumlords, affordable housing shortages, and nonexistent housing maintenance standards. When this is coupled with scarce public services (like undermanned fire departments), the results are “tenement holocausts” where entire families are decimated, specifically by fire and, generally, by the negligence of the formal social order.

Hiro also serves to elucidate how the informal sector and subcultures relate and overlap, as both constitute marginalized people. Hiro’s roommate, Vitaly, is an underground rock star and likes to stage concerts on abandoned freeway overpasses around Southern California. Not only do these concerts attract the expected members of any given cyberpunk subculture – hackers, gargoyles (discussed later under *surveillance spaces*), bikers, skateboarders – but, by default, they also include those who informally reside amidst the discarded urban spaces and artifacts of 20<sup>th</sup> century urbanism.

The fringe crowd looks pretty typical for the wrong side of an L.A. overpass in the middle of the night. There’s a good-sized shantytown of hardcore Third World unemployables, plus a scattering of schizophrenic first worlders who have long ago burned their brains to ash in the radiant heat of their own imaginings. A lot of them have emerged from their overturned dumpsters and refrigerator boxes to stand on tiptoe at the edge of the crowd and peer into the noise and light (1992:122).

Implicit in this discussion of informality lies an underlying bifurcated and polarized social order. Informality, we can assume, applies to the lower half of an emerging, if not already existing, bifurcated society (Sassen, 1991). It refers to that half of society that includes the “... hardcore Third World unemployables...” and burned out “...schizophrenic first worlders,” as Stephenson puts it, as well as immigrants, refugees and everyone else for whom the spoils of globalization are not intended. Thus, the dual city emerges when society is divided into two groups – the extremely wealthy and the extremely poor – with no one in between.

### 2.3 THE DUAL CITY

In *Virtual Light* Gibson’s character, Sammy Sal, observes, “There’s only but two kinds of people. People can afford hotels like that, they’re one kind. We’re the other. Used to be,

like, a middle class, people in between. But not anymore” (1993: 146). The dual city has been a persistent theme in late 20<sup>th</sup> century urban analysis (Mollenkopf and Castells, 1991; Sassen, 1991). The term “dual city”, encompasses the bifurcated social, political and spatial repercussions of inequality. More specifically, the dual city refers to the “...increasing gap between rich and poor; between the powerful and the powerless; between different ethnic, racial and religious groupings; and between genders” (Dear and Flusty, 1998). In the late capitalist backdrop of cyberpunk, the economic system is globalized to the extent that Multi-national corporations, and their attendant mafias, in particular those that transact in information flows, have supplanted national and international units of governance. Multi-nationals concentrate economic and social power thus leaving everyone that falls outside of that system permanently disenfranchised.

The city has typically been where the socioeconomic order – particularly in its divisions and disparities – is made concrete. (I illustrate this in the next section, *Physical zones of the cyberpunk city*). The physical repercussions of social polarization are now familiar elements of the late capitalist urban environment – gleaming towers versus pontoon shantytowns (Fig. 2.6). In his essay on the Generic City, Koolhaas points out the ensuing irony behind the contrary physical embodiments of inequality. He observes,

Housing is not a problem. It has either been completely solved or totally left to chance; in the first case it is legal, in the second “illegal”; in the first case, towers or, usually slabs (at the most, 15 meters deep), in the second (in perfect complementarity) a crust of improvised hovels. One solution consumes the sky, the other the ground. It is strange that those with the least money inhabit the most expensive commodity – earth; those who pay, what is free – air (1995: 1253).

Koolhaas presents his dialectic by diametrically posing legal vs. illegal, towers vs. hovels, sky vs. ground, earth vs. air to presumably stress the extremity between the accumulation of wealth at one pole and the accumulation of poverty at the other pole. The dual city is also materialize in the cyberpunk cities of Gibson and Stephenson through the clear spatial juxtapositions of areas like protected/surveillance spaces vs. the unprotected outlaw zone, the formal burbclave vs. the informal shantytowns, pristine preservation zones vs. crumbling rubble rings.

## 2.0 AN EMERGING URBAN CONDITION



2.6

the dual city in matt groening's *futurama*. note the bottom half of the image. while on top we see hovercraft, glass skyscrapers and urban activity, beneath we notice the underground, rotting city.

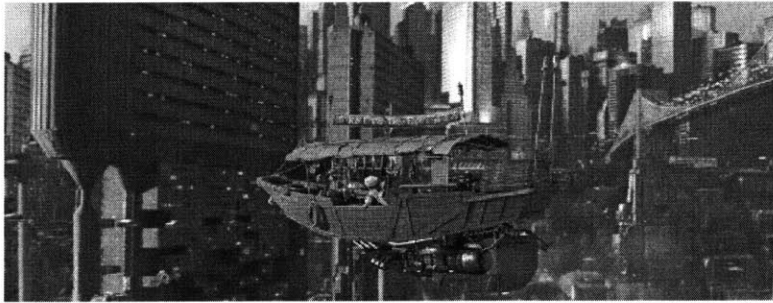


### 2.4 CULTURAL HYBRIDS

In their 1998 article entitled, "Postmodern Urbanism", Dear and Flusty posit an alternative to the Chicago School concentric-ring model of urban structure. Based on the experience of Los Angeles, the authors identify a "...postmodern urban process in which the urban periphery organizes the center within the context of a globalizing capitalism" (65). Part of this postmodern urban process is, as Jencks (1993) puts it, "heteropolis" like Los Angeles, Dear and Flusty explain, is the emergence of cultural hybrids whereby through a process they term, "memetic contagion", "...new identities, cultures, and political alignments emerge." (62). Memetic contagion refers to the "...process by which cultural elements of one individual or group exert cross-over influences upon the culture of another, previously unexposed individual/group." (62). At its best, the heteropolis produced by cultural hybrids can exhibit an improvisational built environment "...characterized by transience, energy, and unplanned vulgarity..." (Jencks in Dear and Flusty: 56) and at its worst the heteropolis has to "...contend with...socioeconomic polarization, racism, inequality, homelessness, and social unrest." (56).

The most evocative images that illustrate the concept of cultural hybrids in urban space come from the street scenes in the 1982 film, "Blade Runner" (Fig. 2.7). Language and the use of space are the main indicators of cultural hybrids in the film. At the chaotic and decadent street level, inhabitants of Los Angeles 2019 communicate in a "city speak" language that combines Japanese, German, Spanish, English, etc. (Harvey, 1990: 310). The population also adapts the city's decaying structures to create a composite of traditional Asian shophouses embedded within the 19<sup>th</sup> century cast-iron skeletons of high rises. David Harvey comments that, "Not only has the "third world" come to Los Angeles even more than at present, but signs of third world systems...are everywhere." (311). The 1997 Besson film, "The Fifth Element", reinforces these "Blade Runner" images when, for example, a Thai food boat floats over the Manhattan skyline (Fig. 2.8). Gibson's *Mona Lisa Overdrive* (1988), also makes reference to the expression of cultural hybrids through both language, (...The Chinese cook spoke to her in Spanish; she ordered by pointing [59].), and the superficial adaptations of the built environment. Kumiko, the young Japanese daughter of

## 2.0 AN EMERGING URBAN CONDITION



2.8



2.7

a Yakuza boss, observes the cultural hybrid in an immigrant neighborhood of London:

In Brixton, the coral-growth of the metropolis had come to harbor a different life. Faces dark and light, unaccounted races, the brick facades washed with a riot of shades and symbols unimaginable to the original builders... The shops sold food-stuffs Kumiko had never seen, bolts of bright cloth, Chinese handtools, Japanese cosmetics...(243)

Not only do immigrants create cultural environments and places that adapt to, and thus change, the character of a place, they also interact with each other to create a whole new hybrid cultures that then interact with the built environment to express life in the future heteropolis. As Soja states, "...Multiform 'composite' cultures are slowly taking shape and expressing their admixture on the local landscape and daily life" (444).

## 2.5 SURVEILLANCE SPACES

In *Variations on a Theme Park* (1992), Michael Sorkin warns that urban life is increasingly characterized by pervasive measures of "...manipulation and surveillance..." combined with a "...proliferation of new modes of segregation" (xiii) which Davis provocatively describes in his acclaimed chapter from *City of Quartz* (1991), "Fortress L.A.". Davis identifies the city of Los Angeles's "obsession with physical security systems" and the "architectural policing of social boundaries" as the "zeitgeist of urban restructuring" in the postmodern city (223). The existing methods of surveillance and security are thus both technological and physical. Our cyberpunk seers, Gibson and Stephenson, extrapolate these existing methods of surveillance and security to create an urban repository that is militarized and precariously contained by a paranoid, private regime of techno-police in a fragmented and hostile physical environment (Fig. 2.9). The future management of people and places is

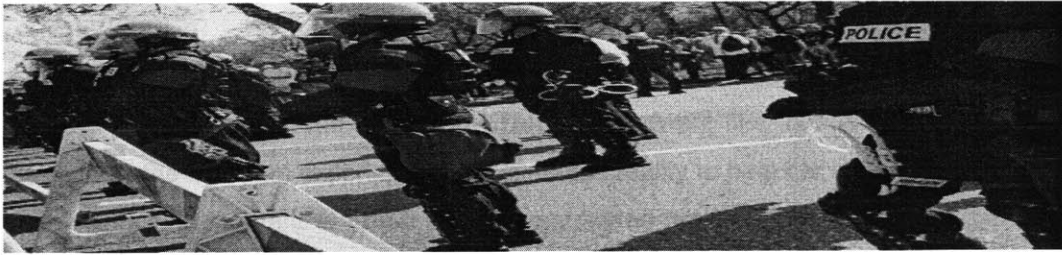
inextricably tied to technology and place and as Stephenson states, "...the social structure of any nation-state is ultimately determined by its security arrangements" (223).

In cyberpunk, surveillance and security are no longer actions executed by the state – unlike in dystopic literary precursors to cyberpunk, such as George Orwell's *1984* – but instead are the responsibility of the private sector. In fact, private security forces already outnumber police forces in the United States (Davis, 1991). Big Brother is replaced by the MetaCops Unlimited. In the cyberpunk city, private policing systems carry out the surveillance and security for multi-national corporate powers and their wealthy constituents. Intelligence "agents" contend with matters of social containment and industrial espionage through exclusionary built forms and sophisticated technologies. Stephenson's burbclaves, the autonomous mini-states for the wealthy, are the epitome of the secure/surveillance spaces of the future city (partly because they can afford it and partly because they have the most to lose). Stephenson describes the entrance to one of the burbclaves as follows, "The border post is well lighted, the customs agents ready to frisk all comers – cavity-search them if they are the wrong kind of people" (14). Through elements such as border posts, iron fences, walls, helicopter fleets and invasive policing techniques the paranoid burbclaves try to maintain a sense of security within an otherwise seemingly chaotic urban environment:

These Burbclaves! These city-states! So small, so insecure, that just about everything, like not mowing your lawn, or playing your stereo too loud, becomes a national security issue. No way to skate around the fence; White Columns has eight-foot iron, robo-wrought, all the way around (Stephenson: 45).

The multi-national corporate powers of the future use a seamlessly integrated system of ultra-sophisticated surveillance functions and information technologies to achieve the universal electronic monitoring and tagging of people and places. Hiro Protagonist of *Snow Crash*, referred to below as "the Deliverator", explains how interactions with the all-powerful multi-nationals entail the resignation of all aspects of personal information and a place in the corporate database:

The Deliverator had to borrow some money to pay for it. Had to borrow it from the Mafia, in fact. So he's in their database now - retinal patterns, DNA, voice graph,



2.9

fingerprints, footprints, palm prints, wrist prints, every...part of the body that had wrinkles on it...those bastards rolled in ink and made a print and digitized it into their computer (Stephenson: 6).

Stephenson extrapolates a future city obsessed with information and surveillance through his concept of the Central Intelligence Corporation, or CIC. The Central Intelligence Corporation (in Langley, Virginia) is what results when the Central Intelligence Agency combines with the Library of Congress. The CIC exists to gather and make available all the information and intelligence that exists, on the chance that something will be useful to someone – for a price, of course. The gatherers of information and intelligence are young hackers like Hiro Protagonist who prefer spending their time cruising the Metaverse (a sophisticated multi-user domain which I discuss further in Chapter 4) looking for information to living in physical reality. Though sometimes the search for intelligence requires being outside of the Metaverse, in the real world, therefore implying surveillance in both the cyber and the real worlds. An extreme version of Hiro's vocation is embodied in the Gargoyle. As the name suggests, Gargoyles lurch over the urban scene, at once removed yet incorporated into the activity, ceaselessly gathering intelligence both in the physical and in the virtual world:

Gargoyles represent the embarrassing side of the Central Intelligence Corporation...they wear their computers on their bodies... They serve as human surveillance devices, recording everything that happens around them...marking the user as belonging to a class that is at once above and far below human society... The payoff for this self-imposed ostracism is that you can be in the Metaverse all the time, and gather intelligence all the time (Stephenson: 123).

In the last few years, the Media Lab at MIT has been developing a wearable computing system not unlike that of Stephenson's Gargoyles. The wearable computing system, called the Rememberance Agent and composed of a user interface and a search engine, adapts its behavior to the user's changing environment by performing tasks such as collecting and

retrieving information from the physical world and the virtual world and, recognizing and overlaying graphics onto the real world. Through hardware like “heads up” displays and earphones, the user can experience an augmented reality to help her streamline her daily interactions. As relevant to urban design, augmented reality allows the use of graphics and text to be associated with the physical world. For example, tourists using augmented reality at a historical landmark can receive and record historical information as they move through the site. This allows the user to concentrate on her physical reality but have immediate access to the virtual, and conversely, the user can engage the virtual while still being aware of her physical surroundings.<sup>3</sup> The wearable computer’s augmented reality is thus a personalized surveillance system under the guise of an intelligent assistant.

Like in Stephenson’s work, the secure urban spaces in Gibson’s stories occur in the only controlled areas of habitation, as in the space colony/resort Freeside. In a futurist adaptation of police helicopters that customarily patrol the urban skies, Gibson conceives of drones, a more resort-friendly, stealth surveillance mechanism:

The thing was a kind of pilotless biplane of gossamer polymer, its wings silkscreened to resemble a giant butterfly... The drones were part of the spindle’s security system, controlled by some central computer (1984: 151).

The point here is that as surveillance techniques become more sophisticated, they become less conspicuous therefore more potentially threatening to privacy and individual and collective freedoms. It is no surprise that analogous, perhaps less sophisticated but just as insidious, situations to the drone already exist. For example, Koolhaas describes the stealth surveillance of Singapore’s Bugis Junction – a former red light district turned sanitized festival marketplace:

The block is hypermodern. The seemingly individual food stalls are connected by a single huge dishwasher-conveyor; on our first visit we are invited to the control room, a wall of monitors connected to hidden cameras that allows supervisors to zoom in on each table, watch each transaction at every stall. (1995: 1015)

At a time when discussions about Internet security abound, this example shows how protecting people’s privacy becomes much more difficult in the physical world than in the virtual world. The consequences of surveillance spaces are considerably more salient in

the physical realm because while it is still possible to disengage oneself from the virtual world it is nearly impossible to disassociate oneself from the physical world.<sup>4</sup>

### 2.6 PRIVATIZATION OF THE PUBLIC REALM

As stated previously, the governance structure as we know it today no longer exists in the super-advanced capitalist social order of the future as multi-national corporations have gained control of all world processes. There are no functioning governments – state, local or otherwise – and in Stephenson’s future, the central government has been decamped and concentrated into an office park complex called Fedland, located off a weed-infested ramp on the Los Angeles freeway. Government functions have been either concessioned out to private entities or abandoned altogether. For example, the monuments and museums of Washington D.C., the essential symbols of the American government, are operated by the private sector and officially maintained as a tourist park (this tourist park serves as an example of a “preservation zone” discussed in the next chapter):

They say that in D.C., all the museums and the monuments have been concessioned out and turned into a tourist park that now generates about 10 percent of the Government’s revenue. The Feds could run the concession themselves and probably keep more of the gross, but that’s not the point. It’s a philosophical thing. A back-to-basics thing. Government should govern. It’s not in the entertainment industry, is it? (Stephenson: 176).

Public services are abandoned altogether and while wealthy burbclaves, as autonomous nation-states, have the means to provide their own water and power, those neglected and poor parts of the future city are left to fend for themselves. In Gibson’s outlaw zones like Dog Solitude, an isolated former landfill in the Rubble Ring of the Sprawl, people must rely on informal means to access the basic necessities of life. For example, residents of Dog Solitude live in an abandoned factory where they hack their way into the Eastern Fission Authority of the Boston Atlanta Metropolitan Axis (BAMA) to tap into the electricity they need for survival as hackers. In other cases, like in the public housing projects of *Count Zero* (1986a), people have reverted to self-sustenance by producing their own food, water, heat, electricity, and even their own spiritual sanctuaries.

It was late afternoon. In a few hours, the first lights would start blinking on in the

## 2.0 AN EMERGING URBAN CONDITION

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dark bulks of the Projects. Big Playground swept away like a concrete sea; the Projects rose beyond the opposite shore, vast rectilinear structures softened by a random overlay of retrofitted greenhouse balconies, catfish tanks, solar heating systems, and the ubiquitous chickenwire dishes (30).

...There's a mosque up top, and a couple or ten thousand holy roller Baptists scattered around, some Curch o' Sci... But how this got started, this level, that goes way back. The people who designed these places, maybe eighty, a hundred years ago, they had the idea they'd make 'em as self-sufficient as possible. Make 'em grow food. Make 'em heat themselves, generate power, whatever (85).

While the disenfranchised part of the population resorts to illegal means or self-sustenance in order to receive the services once managed and provided by the public sector, they are left helpless in the face of oppressive private security and policing, that, because of its lack of provision by the public sector, is contracted out to a few security firms by the wealthy burbclaves, for the express purpose of physically enforcing the already existing social divisions.

MetaCops Unlimited is the official peacekeeping force of White Columns, and also of the Mews at Windsor Heights, The Heights at Bear Run, Cinnamon Grove, and the Farms at Cloverdelle. They also enforce traffic regulations on all highways and byways operated by Fairlanes, Inc. A few different FOQNEs [Franchise-Organized Quasi-National Entities] also use them: Caymans Plus and The Alps, for example. But franchise nations prefer to have their own security force. You can bet that Metazania and New South Africa handle their own security; that's the only reason people become citizens, so they can get drafted. Obviously, Nova Sicilia has its own security, too. Narcolombia doesn't need security because people are scared just to drive past the franchise at less than a hundred miles an hour..., and Mr. Lee's Greater Hong Kong, the granddaddy of all FOQNEs, handles it in a typically Hong Kong way, with robots... MetaCops main competitor, WorldBeat Security, handles all roads belonging to Cruiseways, plus has worldwide contracts with Dixie Traditionals, Pickett's Plantation, Rainbow Heights (check it out - two apartheid Burbclaves and one for black suits), Meadowvale on the [insert name of river] and Brickyard Station. WorldBeat is smaller than MetaCops, handles more upscale contracts... (44 - 45).

It is interesting to note that the social divisions exist not only between social classes, but also along ethnic, racial and ideological boundaries. Thus, the private "peacekeeping" forces have sometimes ambiguous allegiances to burbclaves. Some burbclaves, like Nova Sicilia, so adamantly insist on their autonomy, and are so insulated, that they create their own security forces. (Incidentally, the previous excerpt from *Snow Crash* provides a good summary of the types of ethnic, ideological, and lifestyle burbclaves into which the cyberpunk

city is fragmented).

This process of the private sector supplanting the government in performing customarily public functions is already present in most American cities. A good example of this is the pervasiveness of Business Improvement Districts (BIDs). BIDs are private entities, funded by a coalition of neighborhood businesses, in “partnership” with city government, that clean, patrol, manage, and market entertainment- and central business districts in major cities all over the United States. Implicitly, the presence of BIDs serve to reassure visitors, mostly suburbanites and tourists, that their excursions into the American inner city (read: “outlaw zone”) will be a safe and sanitized one.<sup>5</sup>

The reach of the private sector extends as far as to owning and operating both state roads and federal highways. There are two main corporate competitors in the highway business, Fairlanes, Inc. and Cruiseways, Inc. Though each corporation enjoys its own competitive advantage (the former is known for efficiency of travel while the latter guarantees a pleasant ride), competition between the two corporations is fierce and leads to hostile situations that play themselves out physically in the built form of the city:

CosaNostra Pizza #3569 is on Vista Road just down from King's Park Mall. Vista Road used to belong to the State of California and now is called Fairlanes, Inc. Rte.CSV-5. Its main competitor used to be a U.S. highway and is now called Cruiseways, Inc. Rte. Cal-12. Farther up the valley, the two competing highways actually cross. Once there had been bitter disputes, the intersection closed by sporadic sniper fire. Finally, a big developer bought the entire intersection and turned it into a drive-through mall. Now the roads just feed into a parking system - not a lot, not a ramp, but a system - and lose their identity. Getting through the intersection involves tracing paths through the parking system, many braided filaments of direction like the Ho Chi Minh trail. CSV-5 has better throughput, but Cal-12 has better pavement. That is typical - Fairlanes roads emphasize getting you there, for Type A drivers, and Cruiseways emphasize the enjoyment of the ride, for Type B drivers (Stephenson: 7).

Koolhaas is referring precisely to this type of Fairlanes vs. Cruiseways, competitive, urban-systems-destroying situation in explaining the infrastructure dimension of his Generic City. “Infrastructures, which were mutually reinforcing and totalizing, are becoming more and more competitive and local; they no longer pretend to create functioning wholes but now spin off functional entities. Instead of network and organism, the new infrastructure cre-



## 2.0 AN EMERGING URBAN CONDITION

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ates enclave and impasse... (The city of Bangkok has approved plans for three competing airborne metro systems to get from A to B – may the strongest one win)” (1995: 1264). Thus, it can be asserted that the privatization of city functions creates a fast-track to urban fragmentation, dispersion and social division.

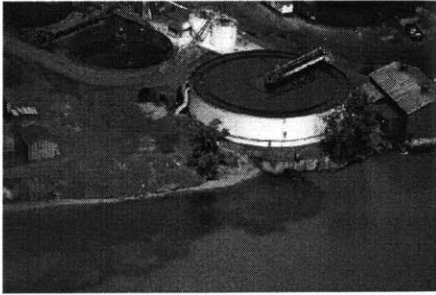
Perhaps, the greatest indicator of the corrosion of the public realm is when highly valued, public lands are conceded to private, profit making interests. Gibson’s *Virtual Light* (1992) confirms the not-so-inconceivable event of (presumably Lucasfilms) purchasing Golden Gate Park in San Francisco. “Skywalker Park was up in San Francisco; it had been called Golden Gate, before, and he remembered a couple of fairly low-key riots on television when they’d privatized it” (1992: 55). In fact, George Lucas has recently expressed interest in creating a “multi-media village” on a site located in the Presidio National Park in San Francisco. The privatization of public lands, which under a government-less political order implies no regulations or controls, can result in drastic consequences, not the least of which may include further exclusion and unthinkable abuses of natural resources. The excerpt below provides a brief snapshot of an unregulated Florida and a hint of the environmental consequences of a *laissez-faire* socio-economic condition:

Well, it was... hot in Florida, like a sauna. The only beaches that weren’t private were polluted, dead fish rolling belly-up in the shallows. Maybe the private stretches were the same, but you couldn’t see them, just the chainlink and the guards in shorts and cop shirts standing around... Sometimes you couldn’t even smell the dead fish, because there was another smell, a chlorine smell that burned the roof of your mouth, something from the factories up the coast. (Gibson, 1988:58)

## 2.7 ENVIRONMENTAL DEGRADATION

The stories told by Dick, Gibson and Stephenson that are included in this study of the cyberpunk city are all set against a presumed global environmental catastrophe along the lines of a world war nuclear fallout. The authors use a calamitous world war as a narrative element to associate the devastating possible consequences, on the city and beyond, of the modern era’s relentless abuse of the earth’s natural resources. Thus, the authors concur in showing that environmental degradation has a significant effect on the form and the function of the future city.

## 2.0 AN EMERGING URBAN CONDITION



2.10

a discharge of unknown origin escapes into the detroit river



2.11

municipal solid waste is buried at a landfill in montgomery county, maryland

In Dick (1968), *World War Terminus* leaves earth so environmentally wrecked that the best assurance of survival is colonizing other planets in space – presumably, everyone remaining on earth will “degenerate” just as the landscape does. Suburbs are left empty and downtowns, due to small populations and neglect, are left merely as ruins of their former selves. Gibson shields his cities with geodesic domes to protect populations from the toxic atmosphere (these are discussed in detail in the section on “Mega-structures”) and also creates idyllic space colonies as an escape from the grimness of terrestrial life. As told in his *Cyberspace Trilogy*, the protective effects of the geodesics are ambiguous; it is not clear whether the domes rectify or intensify the atmospheric misery. For example, Gibson states, “...Beyond the neon shudder of Ninsei, the sky was that mean shade of gray. The air had gotten worse; it seemed to have teeth tonight, and half the crowd wore filtration masks”(1984: 15). And the land is just as contaminated as the air and water (Fig. 2.10). Gibson’s description of how a former landfill, Dog Solitude, deteriorates serves as a fore-warning to the current procedures in brownfields remediation efforts:

... It was a landfill operation a hundred years ago. They laid down a lot of topsoil, but stuff wouldn’t grow. A lot of the fill was toxic. Rain washed the cover off. Guess they just gave up and started dumping more shit on it. Can’t drink the water out there; fulla PCBs and everything else (1988: 155)

Stephenson, as always, presents the most melodramatic cases of environmental degradation in *Snow Crash*. His two most provocative examples of how people adapt to their devastated landscapes are the Raft and the Sacrifice Zone. The Raft is a pontoon megacity of environmental and social disaster refugees, of incomprehensible size and complexity, that has drifted around the world as entire floating villages hastily string themselves to the

transient arrangement. L. Bob Rife, a televangelist and founder of the globally distributed Pearly Gates franchises, commandeers the Raft, formally referred to as the *Enterprise*. The impetus for the Raft came when, due to “hydrological warfare” in the form of deforestation upstream and its consequent floods, the entire country of Bangladesh sunk into the Bay of Bengal:

Again we are on the *Enterprise*... It is swarming with Bangladeshis that L. Bob Rife plucked out of the Bay of Bengal after their country washed into the ocean in a series of massive floods, caused by deforestation farther upstream in India - hydrological warfare (117).

The Sacrifice Zones (which I discuss in further detail in section on “Outlaw Zones”) are fenced-off sections of the city that are quarantined because of their irreversible contamination and because “...clean-up cost exceeds their total future economic value.” (235). For example, Stephenson illustrates the severity of the contamination: “It is a clear night, and so the Sacrifice Zone glitters, an immense carpet of broken glass and shredded asbestos.” (236) (Figure 2.11). In spite of them being isolated from the rest of the city, Sacrifice Zones nevertheless contain inhabitants and activities – though, of course, in the polarized social order of the cybeprunk city, these Sacrifice Zone settlements are entirely informal.

Once they get out of that really creepy part, most of the Sacrifice Zone turns out to consist of a wilderness of dry brown weeds and large abandoned hunks of metal. There are big heaps of shit rising up from place to place - coal or slag or coke or smelt or something. Every time they come around a corner, they encounter a little plantation of vegetables, tended by Asians or South Americans (239).

The implications of the existence of Sacrifice Zones are disturbing. Not only is the value of land considered purely in terms of its economic value while issues such as biodiversity and the protection of animals and humans are literally worthless but also, as would be expected, the most disadvantaged members of society must strive to survive in places like Sacrifice Zones.

The film, “The Fifth Element”, provides a visual image of how environmental degradation can affect the physical form of the city. As seen in previous films such as “Metropolis” (1917), “Things to Come”(1936), and “Blade Runner”(1982), extreme verticality is a common image for the city of the future. In “The Fifth Element”(1997), the incredible structural

## 2.0 AN EMERGING URBAN CONDITION

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heights of a city without top, without bottom, and without limits are a result of lowered oceanic water-table elevation which resulted from exporting water to colonies in distant planets (Figures 2.12, 2.13). This caused the Hudson and East rivers to dry up, thus leaving the island of Manhattan on a high plateau. As a consequence, real-estate development excavated down, slicing the island into vertical canyons and changed the notion of a single street and ground plane for circulation – thus justifying the ubiquitous hovering vehicles that navigate between the stratified vertical layers of the city. Since the street layers are stripped away, underground infrastructure like city utilities and subway tunnels are exposed and, as you descend to ground level, daylight fades and you enter an artificially lit realm that operates independent of the time of day. Thus, “The Fifth Element’s” future vision of Manhattan shows how changes in the natural environment can impact the direction of urban development.

### 2.8 ABANDONMENT

The post-industrial city does not recover from its decline and an information-based economy does not serve to restore the physical city. In an information economy, wealth is created and maintained through data exchange and the production of information. Information is stored and accessed virtually – in the Matrix, the CIC, the Metaverse – and curiously, the economic activity generated by data exchange is not reflected in the urban landscapes of the post-industrial city. Though data exchange occurs virtually, this activity is nevertheless concentrated around the two major urban centers of the Sprawl, New York and Atlanta. So, cities are not empty – at least not the ones that provide the command and control functions for the information economy (see Sassen, 1991). But in spite of vigorous economic activity in cities, factors such as social inequality and the erosion of the public sector combine to allow poverty to predominate in the physical world.

This physical poverty of the cyberpunk city looks just like that of American inner city poverty seen in places like Detroit and East St. Louis, suggesting the permanence of decay (Figure 2.14). “He turned and stared up at the Projects. Whole floors there were forever unlit, either derelict or the windows blacked out”(Gibson, 1988: 33). There are deserted street markets, abandoned buildings (or “burned out highstacks”), empty streets, and crum-

## 2.0 AN EMERGING URBAN CONDITION

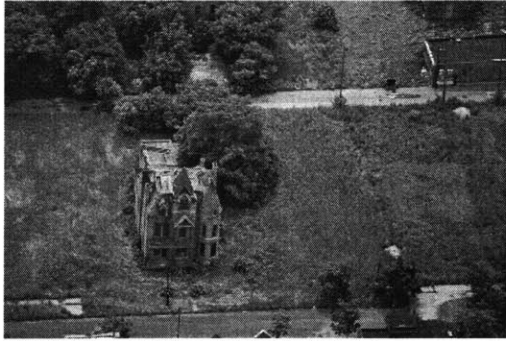


2.12 a side view from brooklyn looking across the drained east river. 1960s metabolist cluster apartment units against the manhattan skyline.

2.13 the drastic lowering of the water table in a future manhattan results in hypervertical urbanism. manhattan becomes a city of vertical sprawl with no apparent end - either at the bottom or at the top of the city.

## 2.0 AN EMERGING URBAN CONDITION

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2.14  
nature reclaims the land around a dilapidated  
house in a neighborhood near downtown detroit

bling neighborhoods, all presumably located in the Outlaw Zones of the city.

Their taxi ride from the airport had already shown her decay, whole blocks in ruin, unglazed windows gaping above sidewalks heaped with trash. And faces staring as the armored hover made its way through the streets... with its rot and randomness rooting towers taller than any in Tokyo, corporate obelisks that pierced the sooty lacework of overlapping domes (Gibson, 1988:161)

(Re: Ventura Boulevard in Los Angeles) ... These streets looked completely different when you walked them. For one thing, you were pretty much alone; for another, you could see how cracked and dusty a lot of the buildings were. Empty spaces behind dirty glass, with a yellowing pile of junk-mail on the floor inside and maybe a puddle of what couldn't be rainwater, so you sort of wondered what it was (Gibson, 1993: 58).

And as in physically decayed places like Detroit, where pheasants have been seen roaming vacant lots and residents grow agricultural crops of corn, there are areas of the city that are turning back to nature. At a local microbrewery, "They grow their own hops. Contract it out to some urban gardeners. Chinese peasants who do the grunt work for 'em" (Stephenson: 152).

The surf is always up on the Harbor Freeway, which gets her from Downtown into Compton, but the off-ramps into that neighborhood are so rarely used that three-foot tumbleweeds grow in their potholes (Stephenson: 163).

### [2.9 A COMPOSITE]

Dear and Flusty sum up a composite scenario of a cyberpunk emerging urban condition best in the following passage. It is interesting to note how the postmodern, yet academic, language in the text below is almost indistinguishable from the previously noted excerpts from Gibson's and Stephenson's novels.

Contemporary urbanism is a consequence of how local and interlocal flows of material and information (including symbols) intersect in a rapidly converging globally integrated economy driven by the imperatives of flexism [instantaneous delivery and rapid re-directability of resource flows]. Landscapes and peoples are homogenized to facilitate large-scale production and consumption. Highly mobile capital and commodity flows outmaneuver geographically fixed labor markets, communities, and nation-states, and cause a globally bifurcated polarization. The beneficiaries of this system are the cybergoisie [who provide command and control], even as the numbers of permanently marginalized protosurps [marginalized 'surplus' labor that provide just in time labor] grow. In the new global order, socioeconomic polarization and massive, sudden population migrations spawn cultural hybrids through the process of memetic contagion [process by which cultural elements of one individual or group exert crossover influences upon the previously unexposed culture of another individual/group]. Cities no longer develop as concentrated loci of population and economic activity, but as fragmented parcels within... the collective world city. Materially, the [collective world city] consists of ... (commodified communities) and the... (permanently marginalized). Virtually, the [collective world city] is composed of... (those hooked into the electronic world) and... (those who are not). Social order is maintained by the ideological apparatus of the [disinformation superhighway]... and by the praedatorian guard, the privatized vestiges of the nation-state's police powers (65).

This is the social subtext for the future of urban life. Inevitably, this social condition concurrently grows out of the physical structure of the city and directs how the physical city develops (or decays). In the following chapter, we will see how placelessness, informality, dual cities, cultural hybrids, surveillance spaces, the privatization of the public realm, environmental degradation, and abandonment are manifested physically in the form of the cyberpunk future city.

<sup>1</sup> Jameson refers to pastiche as “blank parody” and to the simulacrum, a term which Jameson attributes to Plato, as, “the identical copy for which no original has ever existed” (1984: 65-66).

<sup>2</sup> Kellner observes, “The ‘punk’ root derives from the punk rock movement, signifying the edge and attitude of tough urban life, sex, drugs, violence, and antiauthoritarian rebellion in lifestyles, pop culture, and fashion” (301).

<sup>3</sup> More information on the Rememberance Agent can be found in, Stamer, Mann, Rhodes, Levin, et al. 1997. “Augmented Reality Through Wearable Computing”, MIT Media Laboratory Perceptual Computing Section Technical Report No. 397. Cambridge, MA.

<sup>4</sup> Though in Gibson’s *Count Zero*, Virek – the wealthiest and most powerful man in the world and beyond – is a pile of cells stored in a vat somewhere while his self appears in any number of “realities” wherein others interact with Virek through simulated stimulation, or “sim stims”. More on this in Chapter 4, Virtual Spaces.

<sup>5</sup> For more on BIDs, see Ryan, Brent “Philadelphia Center City District and the Privatization of the Public Realm,” in *Projections, the MIT Student Journal of Planning*, vol.1.



### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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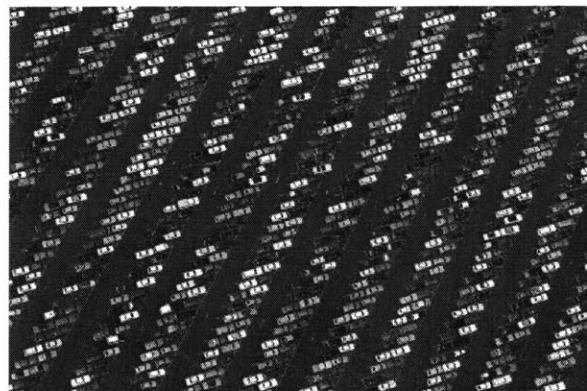
### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

#### 3.1 CONURBATION: THE SPRAWL

The predominant regional image of urban structure in cyberpunk is that of the conurbation/megalopolis. A conurbation is defined as an aggregation or continuous network of urban settlements and the megalopolis is a densely populated region embracing several metropolises (Webster Dictionary, 1999). BAMA, the Boston-Atlanta Metropolitan Axis, also known as the Sprawl, is the United States' Eastern Seaboard conurbation in Gibson's *Cyberspace Trilogy*. The Sprawl stretches from Atlanta to Boston with its principal core of activity in New York City. In an example of the postmodernist tenet of time-space compression, people navigate between urban centers, from Atlanta to Boston, through a Sprawl-length, rapid subway system. Waking up in Atlanta, one can tube up to New York for breakfast. Stephenson's work also presents a perhaps more unique conception of the interaction between sprawl<sup>1</sup> and the American landscape. In *Snow Crash*, Stephenson provides a striking illustration of sprawl. The built environment is so pervasive that the U.S. is connected from sea to shining sea through a continuous chain of black asphalt (Fig. 3.1),

...[this] parking lot is linked with that of a [Chop Shop] franchise next door,... which in turn flows into the lot of a neighboring strip mall. A dedicated thrasher could probably navigate from L.A. to New York by coasting from one parking lot into the next (193)

An unintentionally constructed interstate highway system composed of interconnected parking lots is an entirely conceivable development; imagine as Central Business District parking lots bleed into strip mall lots, which melt into office park lots, which continue onto indus-



3.1

disney world parking lot in orlando, florida

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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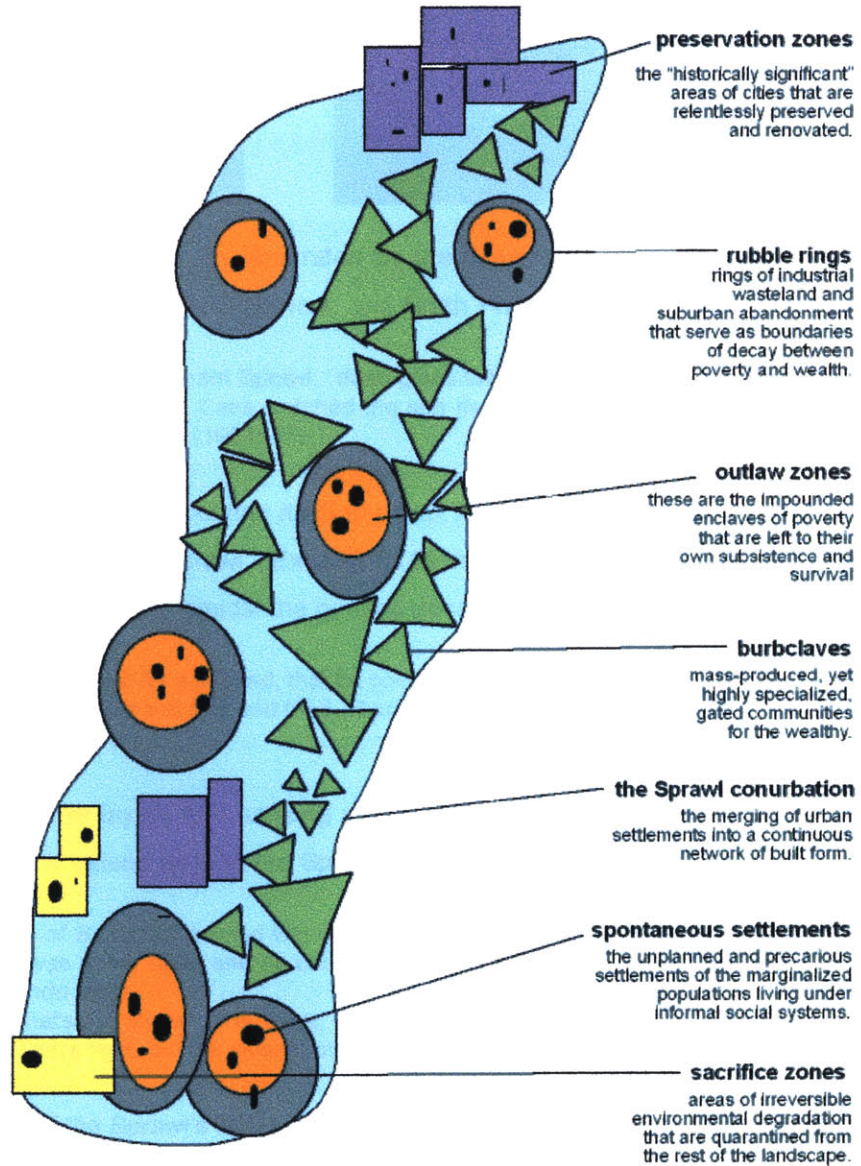
trial park lots, then onto e-commerce warehouse lots, and so on. This geography of an intensely concentrated brand of development spreads itself over the landscape. This implies that Gibson's and Stephenson's sprawl is vastly different from the suburban and exurban sprawl that exists today. The cyberpunk Sprawl is composed of tightly packed low-rise landscapes of decaying structures that are, in no particularly consistent pattern, sometimes overcrowded and sometimes abandoned. This results in a fragmented patchwork of activity, development, and decay along the continuous urbanity. Enclosed within this fragmented patchwork of urbanity we find most of the other elements and zones (domes, outlaw zones, burbclaves, rubble rings, spontaneous settlements and preservation zones) that cyberpunk literature associates with our future urban condition. Generally then, a conurbation such as the Sprawl is the overall fabric that cloaks the other compositional elements of the Cyberpunk City (Fig. 3.2).

In Gibson's work, East Coast hubs maintain the cultural and/or economic characteristics of their present identities; for example, the "...old hub of Baltimore..." is still known for its crabs and Boston's bio-tech economy has mutated into cyborg engineering. However, most economic activity – primarily in the form of data exchange – is split between New York and Atlanta. As Gibson explains in *Neuromancer*,

Program a map to display frequency of data exchange, every thousand megabytes a single pixel on a very large screen. Manhattan and Atlanta burn a solid white. Then they start to pulse, the rate of traffic threatening to overload your stimulation. Your map is about to go nova. Cool it down. Up your scale. Each pixel 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... (43)

This representation of data exchange is supported by Manhattan's present role as the US's if not the world's, center for the exchange of wealth (enforced by the powerful, globally distributed images of Wall Street and Times Square) and Atlanta's position as a burgeoning center of information distribution (for example, as home to CNN's World Headquarters). But, Gibson's description of the physical state of urban centers along the Sprawl, including that of New York and Atlanta, does not reflect the level of economic activity suggested by images of frequency of data exchange (Figs. 3.3 and 3.4). The landscape is that

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

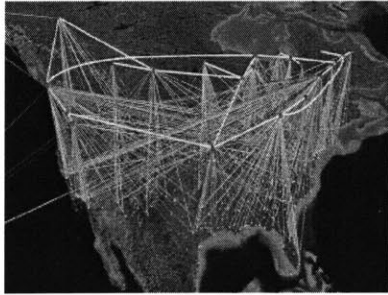


this diagram arranges the different physical zones of the cyberpunk city within the Sprawl conurbation.

3.2

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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3.3

3.4

of the decaying post-industrial city illustrated by the dilapidated physical conditions of present-day crisis cities like Detroit, Newark, and North Philadelphia.

The landscape of the northern Sprawl... dead grass tufting the cracks in a canted slab of freeway concrete... Case watched the sun rise... on broken slag and the rusting shells of refineries. (1984: 85)

And the urban decay does not confine itself to select fringe areas of the Sprawl, it is the predominant condition of the Sprawl. Exceptions to this are the enclaves of wealth and preservation that are scattered amidst the general decaying mega-city.

It seemed to him, just for a second, that he could feel the whole Sprawl breathing, and its breath was old and sick and tired, all up and down the stations from Boston to Atlanta. (1986a: 207)

Seemingly interminable layers of crumbling urban life and built form both are contained within the Sprawl and extend beyond the Sprawl:

The condos of Barrytown looked like some gray-white fungus, spreading to the horizon. It was nearly dark, and he could make out a pink glow, beyond the last range of condo racks.

"That's the Sprawl, over there, isn't it? That pink."

"That's right, but the closer you get, the less pretty it looks." (1986a: 86)

Gibson's depiction of the Sprawl's Washington D.C., also in *Count Zero*, further illustrates this point:

Washington was a Southern city, always has been, and you felt the tone of the Sprawl shift here if you rode the trains down the stations from Boston. The trees in the District were lush and green, and their leaves shaded the arc lights as Turner and Angela Mitchell made their way along the broken sidewalks to Dupont Circle and the station. There were drums in the circle, and someone had lit a trash fire in the giant's marble goblet at the center. Silent figures sat beside spread blankets as they passed, the blankets arrayed with surreal assortments of merchandise... (1986a: 201)

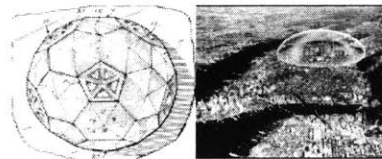
### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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So, how do two seemingly contradictory phenomena – sprawl and decay – occur? What could have happened between now and then to spur growth to the extent that all cities on the East Coast become one? And, what makes this growth unsustainable to the point where most of the built form is in the process of decay?

One possible explanation for these seemingly contradictory phenomena of simultaneous growth and decay is that the physical realm cannot adequately adjust to accelerated social change (and this is where the virtual realm enjoys a particular competitive advantage over the physical – but more on that in Chapter 4). So, while there may exist rampant activity (exchange, production) in the economic and social spheres of a society, bricks and mortar requires a longer-term window of opportunity for restructuring itself in order to accommodate or participate in whatever change may be taking place.

Another explanation could be that the combination of concurrent sprawl and decay comes as a result of increased privatization as the public sector withers. In cyberpunk literature, the world functions at the mercy of Multi-national corporations (MNCs) and Mafia-type organizations that control the informal, or “shadow”, economy. Since the government has ceased to exist at all levels, there is no regulation, control, or planning for the defense of the interests of the disenfranchised society-at-large. The private sector does as it desires, it builds where it wants to, how it wants to, and thus develops in a manner that optimizes profit making. Profit maximizing development has typically involved new construction on raw land, which is located at the edges of existing development. (This being in direct contrast to sprawl-restricting practices such as redevelopment, adaptive reuse, brownfields redevelopment, and historic preservation – which all occur in previously urbanized areas). Concurrently, and also because of the lack of control over the private sector by a regulatory body such as a government, existing structures and public goods, such as sidewalks and public housing, decay due to disinvestment – profits are slim in the public goods sector. Moreover, the populations that depend on the public goods do not have the economic means to provide the investment necessary for upkeep themselves.



3.5

## 3.2 MEGA-STRUCTURES

Buckminster Fuller, the visionary architect and engineer of the modernist era, invented the Geodesic Dome to advance his proposals for providing housing and improving standards of living in the late 1940s, the years following WWII. The geodesic dome is a sphere-shaped structure comprised of a complex network of triangles that join to form a roughly spherical form. (The smaller the triangles, the closer a dome will verge upon the shape of a true sphere). Fuller eventually broadened his vision for the geodesic dome in proposing enormous transparent domes over entire cities. To be built either from scratch or retrofitted for a particular city, the geodesic dome was meant to create a climatically controlled environment. Figure 3.5 shows Fuller's drawing of a dome for Manhattan. Fuller noted that a geodesic dome would ultimately be cost effective since the city would enjoy a great increase in thermal efficiency and improved air quality, because of the air currents that occur naturally in a dome, and also be relieved of having to bear snow removal costs.<sup>2</sup> Other advantages of the controlled climate, Fuller argued, would be that life under the geodesics would allow for year-round food raising and the construction of lightly built and longer-lasting homes. Fuller saw that sustainability could be achieved under a glass dome.

Two decades after Fuller popularized the geodesic dome, Paolo Soleri, an Italian-born architect, published an astonishing collection of ideas and visionary drawings for future autonomous communities. *Arcology: The City in the Image of Man* (1969) described a concept that combined architecture with ecology to produce immense megastructures containing entire worlds and landscapes. Arcologies would be "urban structures so dense as to host life, work, education, culture, leisure, and health for hundreds of thousands of people per square mile...a metropolitan solid, saturated with flux and liveliness." (in Corn and Horrigan: 58). During the 1980s, Soleri extended his concept of the arcology in drawings of future settlements built on asteroids in space. Cyberpunk appropriates Soleri's arcologies but applies their concept to the hermetic corporate bastions, the "corporate arcologies", that are the physical expression of global corporate power in the future city. The image of corporate arcologies predominates the urban landscape in the film "Blade Runner" (1982),

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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and is best exemplified by the Tyrell corporation's massive headquarters.

William Gibson realizes Fuller's dream by building geodesic domes over the cyberpunk cities of his *Cyberspace Trilogy*. However, building domes over Gibson's *Sprawl* and *Chiba City* is not an exercise in sustainability as much as it is a necessity for supporting life after nuclear fallout. Without a doubt, the dystopian version of Fuller domes depicts the geodesic caps as wretched cages that create artificial environments that ultimately alienate humans from essential natural elements such as fresh air and sunlight. Life under the geodesic domes forces inhabitants to endure everything from unpredictable microclimates and artificial light to dripping condensation and static discharge. In *Count Zero*, Gibson explains:

Bobby climbed down...into the unmistakable signature smell of the *Sprawl*, a rich amalgam of stale subway exhalations, ancient soot, and the carcinogenic tang of fresh plastics, all of it shot through with the carbon edge of illicit fossil fuels. High overhead, in the reflected glare of arc lamps, one of the unfinished Fuller domes shut out two thirds of the salmon-pink evening sky, its ragged edge like broken gray honeycomb. The *Sprawl's* patchwork of domes tended to generate inadvertent microclimates; there were areas of a few city blocks where a fine drizzle of condensation fell continually from the soot-stained geodesics, and sections of high dome famous for displays of static-discharge, a peculiarly urban variety of lightning. There was a stiff wind blowing...a warm, gritty breeze that probably had something to do with pressure shifts in the *Sprawl-long* subway system. (114)

The domes are block wide and must overlap each other so as to cover the city's metropolitan area and presumably protect the largest amount of people from contamination. But, as evidenced by the previous and subsequent quotes, in an era when decay is a standard of the urban condition the domes may cause as much environmental damage as they originally sought to ameliorate:

The mall runs forty kilometers from end to end, a ragged overlap of Fuller domes roofing what was once a suburban artery. If they turn off the arcs on a clear day, a gray approximation of sunlight filters through layers of acrylic, a view like the prison sketches of Giovanni Piranesi. The three southernmost kilometers roof *Nighttown*. *Nighttown* pays no taxes, no utilities. The neon arcs are dead, and the geodesics have been smoked black by decades of cooking fires. In the nearly total darkness of a *Nighttown* noon, who notices a few dozen mad children lost in the rafters? (*Johnny Mnemonic*: 13)

The neon arc lights refer to the artificial lighting required once the domes could not be



### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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maintained transparent. So with time, the geodesics' ragged overlapping and malfunctioning systems create perverse side effects such as "...Freak winds in the East side; something to do with convection, and an overlap in the domes" (1984: 47) and, "...Condensation dripped steadily from the old [cracked] Georgetown dome..." (1986: 201). Furthermore, when one is out from under a dome a possible consequence of a dome-accustomed life is agoraphobia, the abnormal fear of being in open spaces. Gibson vividly demonstrates how the perverse side effects of doming cities nullify the possible benefits of shielding populations via controlled environments.

The present-day material analogues of the cyberpunk domes are the climatically-controlled hyperstructures produced by massive enclosed areas such as airports, skyscrapers, convention centers, covered stadiums (incidentally referred to as 'Domes'), underground walkways, skywalks, Walmarts, and mega-malls. These mega-structures exhibit some of the same characteristics as the artificial futurist environments of domes and arcologies. Mega-structures not only isolate humans from the essential natural elements of fresh air and sun and supplant these with artificial lighting, climate control (cooling and heating), and "green" simulacra (i.e. Astroturf) but they also create clearly delineated and controlled spaces for mass consumption – be it of information, goods, or entertainment. In describing the corporate citadel of Bunker Hill in Downtown Los Angeles Davis states, "The Downtown hyperstructure – like some Buckminster Fuller post-Holocaust fantasy – is programmed to ensure a seamless continuum of middle-class work, consumption, and recreation, without unwonted exposure to Downtown's working-class street environments" (199: 231).

In an alternative adaptation to domed life, the spaces immediately under the domes are settled to form an unconventional mode of illicit habitation. In Gibson's short story, *Johnny Mnemonic* (1982), a tribe of bandits, the Lo Teks, lives high above Chiba City's outlaw zone, Nighttown, under the curve of the geodesic domes. The two protagonists of the story, Johnny and Molly, looking to hide from the Yakuza, the world's most powerful criminal order, head for the Lo Tek settlement:

... You hide above Nighttown, because the Pit's inverted, and the bottom of its bowl touches the sky, the sky that Nighttown never sees, sweating under its own firma-

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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ment of acrylic resin, up where the Lo Tek s crouch in the dark like gargoyles... (8).

Thus the Lo Tek s, "...leech their webs and huddling places to the city's fabric with thick gobs of epoxy and sleep above the abyss in mesh hammocks. Their country is so attenuated that in places it consists of little more than holds for hands and feet, sawed into geodesic struts." (16). True to their name, the Lo Tek s are living in a primitive and precarious manner. But they are simultaneously creating a self-directed space that is independent from the Yakuza s and the Zaibatsu s that control life on the ground and coming as close as is tangibly possible to an organic life. It is no accident that the so-called "Pit" of the Chiba dome is the area nearest to the natural sky.

### 3.3 THE OUTLAW ZONES

Much like the Lo Tek settlement that dangles beneath Chiba City's geodesic domes in *Johnny Mnemonic*, the Ninsei enclave and Los Angeles' Compton sector in *Neuromancer*, and the Alaska Highway and Sacrifice Zones in *Snow Crash*, act as the prototypical "Outlaw Zones" in the cyberpunk city of the future. Though not explicitly in reference to the cyberpunk urban typology, Edward Soja best defines outlaw zones when he describes Los Angeles' "crisis" neighborhoods such as South Central and Compton as "...impounded enclave[s] of poverty left to [their] own subsistence and survival econom[ies] of racially defined separate development" (1992). Part property abandonment, part permanent rebellion, and entirely informal, the outlaw zone represents the worst case scenario of the possible consequences of today's urban blight, segregation, pollution, decay, and poverty (Fig. 3.6).

The Outlaw Zones can be defined as the anarchic parts of the cyberpunk future city. Unplanned, unsupervised, and unprotected, outlaw zones contrast directly with "burbsclaves" – the highly planned, protected and surveillance-rich gated communities that I describe later in this chapter. In *Snow Crash*, Stephenson observes:

Southern California doesn't know whether to bustle or just strangle itself on the spot. Not enough roads for the number of people. Fairlanes, Inc. is laying new ones all the time. Have to bulldoze lots of neighborhoods to do it, but those seven-

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

the vicious cycle of blight: vacant buildings in Queens, New York attract arson and vandalism



3.6

ties and eighties developments exist to be bulldozed, right? No sidewalks, no schools, no nothing. Don't have their own police force - no immigration control - undesirables can walk right in without being frisked or even harassed. Now a Burbclave, that's the place to live. A city-state with its own constitution, a border, laws, cops, everything. (1992: 6)

As a fragmented urban landscape evolves, the form of the city is strictly divided between, as Davis puts it, "... 'fortified cells' of affluent society and 'places of terror'..." (1990: 224). In the cyberpunk city, burbclaves are the fortified cells of affluence and the outlaw zones are places of terror. The outlaw zones as formulated by Stephenson and Gibson are analogous to two presently existing deficient-types of human settlements: 1) the urban islands of poverty that exist in American inner cities such as East St.Louis, the East side of Detroit, the South side of Chicago, and Southcentral Los Angeles and 2) the squatter settlements spontaneously erected in cities of the developing world like the notorious *favelas* of Rio de Janeiro or the *basurales* (landfill villages) of Mexico City.

Stephenson illustrates his version of the prototypical outlaw zone as "place of terror" most vividly through an exaggerated account of a future Compton, the notorious Los Angeles neighborhood whose current media-generated L.A. rebellion and gangster-rap image is one of extreme violence and squalor.

It's the worst thing he has ever seen, Compton. Lepers roasting dogs on spits over tubs of flaming kerosene. Street people pushing wheelbarrows piled high with dropping clots of million- and billion-dollar bills that they have raked up out of storm sewers. Road kills - enormous road kills - road kills so big that they could only be human beings, smeared out into chunky swaths a block long. Burning roadblocks across major avenues. No franchises anywhere...people are shooting at him...men lurk on top of burned tenements...the vacant lot is a wilderness of charred bricks and twisted electrical conduit. (1992: 146)

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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In *Snow Crash*, Compton represents the ultimate debasement of humanity. Lepers, street people, human road kills, and snipers occupy a landscape of burned tenements, charred bricks and discarded scraps of technology. As a, "...war zone, [and] longtime stronghold of Narcolombians and Rastafarian gunslingers" (1992: 144), Stephenson's future Compton is the literal, though overstated, materialization of Soja's, "racially defined separated neighborhood." The above image of Compton can be interpreted as Stephenson's vision of the direction that future decline may take in the inner city neighborhoods that Vergara has termed, "New American Ghetto[s]" (1995) Stephenson's Compton is a warning to us about the possible consequences of continued American inner city disinvestment.

Less dramatically than Compton, the Alcan and the Sacrifice Zone provide powerful images of the different incarnations of outlaw zones in the dystopian urban future. These two outlaw zones are based upon the spontaneous squatter settlements of the marginal and unvalued land common to cities in the developing world. Squatter settlements in developing countries are often located in marginal, often highly polluted land such as along railway lines, sewerage canals, and landfills. Often this land is publicly owned and appropriated by squatters with either ineffective or nonexistent resistance from the formal sector of society. The Alcan illustrates the appropriation of public land for unplanned, informal settlement and the Sacrifice Zone is emblematic of the class of marginal lands the most desperate members of a society are forced to occupy.

The Alaskan Highway, also known as the Alcan, is a sprawling, spontaneously appropriated linear city of mobile homes. The Alcan illustrates the process of land appropriation as well as the physical and social consequence of people acting on the libertarian principle of an individual's right to live in whatever manner s/he chooses:

The Alcan - The Alaska Highway - is the world's longest franchise ghetto, a one-dimensional city two thousand miles long and a hundred feet wide, and growing at the rate of a hundred miles a year, or as quickly as people can drive up to the edge of the wilderness and park their bagos in the next available slot.... It's all two-lane, paved but not well paved, and choked with mobile homes, family vans, pickup trucks with camper backs. It starts somewhere in the middle of British Columbia, at the cross roads of Prince George, where a number of tributaries feed in together to make a single northbound highway. South of there, the tributaries split into a delta

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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of feeder roads that crosses the Canadian/American border at a dozen or more places spread out over five hundred miles from the fjords of British Columbia to the vast striped wheatlands of central Montana. Then it ties into the American road system, which serves as the headwaters of the migration. This five-hundred-mile swath of territory is filled with would-be arctic explorers in great wheeled houses...All these beefy Caucasians with guns!...looking for the America they always believed they'd grow up in...they are like beavers hyped up on crystal meth, manic engineers without a blueprint, chewing through the wilderness, building things and abandoning them, altering the flow of mighty rivers and then moving on because the place ain't what it used to be. The byproduct of the lifestyle is polluted rivers, greenhouse effect, spouse abuse, televangelists and serial killers...you can sustain it, keep moving just quickly enough to stay one step ahead of your own waste stream. (1992: 292)

The “manic engineers without a blueprint” have created a new incarnation of sprawl – a spontaneously generated cobra that slithers itself along the landscape incessantly consuming (“at the rate of a hundred miles a year”) natural and social resources. The Alcan shares all the characteristics of the more urban variety of outlaw zones, like Compton, in that it is an unplanned, unregulated, and racially segregated informal settlement yet it is linear and peripherally located. Compton and the Alcan effectively represent two sides of the same coin; they are precarious settlements, urban and exurban respectively, that result from life in the informal sector of society.

The third of Stephenson's outlaw zone typologies is the Sacrifice Zone. This is an area deliberately isolated from the rest of development because of extremely dangerous levels of environmental contamination and, as a consequence of these, insignificant economic values. Signs posted at the peripheries of the sacrifice zones say, “...WARNING. The National Parks Service has declared this area to be a National Sacrifice Zone. The Sacrifice Zone Program was developed to manage parcels of land whose clean-up cost exceeds their total future economic value” (1992: 235). As would be expected of a society dramatically polarized along economic and social lines, the sacrifice zones do not remain uninhabited. The sacrifice zones, as marginal landscapes isolated from formal activity cores like burbclaves, are natural locations for the disadvantaged to settle. Again, within a Los Angeles context, the future Long Beach is a sacrifice zone:

Long Beach... she will do anything to avoid the Sacrifice Zone. It's an abandoned shipyard the size of a small town. It sticks out into San Pedro Bay, where the older,

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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nastier Burbclaves of the Basin - unplanned Burbclaves of tiny asbestos-shingled houses patrolled by beetle-browed Kampuchean men with pump shotguns - fade off into the foam-kissed beaches. Most of it's on the appropriately named Terminal Island... (1992: 235)

Once they get out of that really creepy part, most of the Sacrifice Zone turns out to consist of a wilderness of dry brown weeds and large abandoned hunks of metal. There are big heaps of shit rising up from place to place - coal or slag or coke or smelt or something. Every time they come around a corner, they encounter a little plantation of vegetables, tended by Asians or South Americans. (1992: 239)

Stephenson's description of a sacrifice zone conjures images of Mexico City's and Manila's landfill villages where entire families participate in collecting, recycling and re-selling trash and in order to do so, build their homes right on the landfill thus creating agglomerations of post-apocalyptic-esque live/work dwellings. Again, sacrifice zones exhibit the same basic characteristics as Stephenson's other outlaw zones. Like Compton and the Alcan - poor, racially segregated, and spatially isolated settlements - the Sacrifice Zone complies with the outlaw zone typology of a devastated landscape precariously settled by the most disadvantaged and resource-scarce members of a polarized society.

Stephenson's outlaw zones generally subscribe to the characteristics of the outlaw zone Gibson introduces in *Neuromancer* through his characterization of Chiba City's enclave, named Ninsei. More *noir* and familiarly urban than Stephenson, Gibson depicts Ninsei as a distant and abandoned skid row of inert depravity that lies beyond the glare of the formal city.

Behind the port lay the city, factory domes dominated by the vast cubes of corporate arcologies. Port and city were divided by a narrow borderland of older streets, an area with no official name. Night City, with Ninsei its heart. By day, the bars down Ninsei were shuttered and featureless, the neon dead, the holograms inert, waiting, under the poisoned silver sky. (1984: 6)

Note how factory domes and corporate arcologies dominate the view from the port towards the city. Chiba City is the global center for biosoft implants, cyborg engineering and its allied medical procedures. As the leading producer of a place-based commodity in an otherwise information-based, virtual economy, Chiba City is one of the few affluent world cities generated by globalization. Gibson speculates as to why the Ninsei outlaw zone

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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endures in spite of Chiba City's lucrative development and therefore also sheds light upon the growth/decay contradiction of the Sprawl that I discussed in the previous section of this chapter.

There were countless theories explaining why Chiba City tolerated the Ninsei enclave, but Case tended toward the idea that the Yakuza might be preserving the place as a kind of historical park, a reminder of humble origins. But he also saw a certain sense in the notion that burgeoning technologies require outlaw zones, that Night City wasn't there for its inhabitants, but as a deliberately unsupervised playground for technology itself. (1984: 11)

The act of maintaining the outlaw zones as isolated enclaves is deliberate – either for the sake of nostalgia or progress. For Gibson, the outlaw zones act as both distinguishing juxtapositions to the formal wealthy enclaves and as unregulated and “unsupervised” spaces for the development of unimaginable technological incarnations that only a sinister landscape can produce.

A by-product of the informality of the outlaw zones is a spontaneous mode of settlement and use of space that presents a rare positive aspect of outlaw zones. In *Mona Lisa Overdrive* (1988), Gibson suggests that those living in the desolate landscapes of the outlaw zones ingeniously adapt themselves by utilizing discarded and uncared-for spaces for public functions. The tool of spontaneity in settlement becomes an asset when *ad hoc* public squares emerge from old, empty parking lots: “...Somebody was playing trumpet in the asphalt square that had been the parking lot...” (58). While a seemingly insignificant act within the larger context of depravity that exists in the various manifestations of outlaw zones, the simplicity of claiming and re-using barren elements of “outlaw” landscapes presents a glimmer of hope for an otherwise grim existence in the informal sector of society. Another vestige of public-ness that emerges in spite of the isolation of outlaw zones, though in this case under corporate control and with inciting consumption as its ultimate goal, are the holograms/loggos for advertising that illuminate urban skies and serve as landmarks for an unyielding and sprawling landscape. (“The loglo, overhead, marking out CSV-5 in twin contrails, is a body of electrical light made of innumerable cells, each cell designed in Manhattan by imageers...” [Stephenson:7]).

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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Another glimmer of hope, though this time with a twist of gentrification, is Stephenson's recognition and anticipation of an urban settlement trend that has emerged in recent years as techno-savvy twentysomethings populate former urban "outlaw zones". Mitchell refers to these as the "...hot spots of specialized economic and cultural activity," generated by the, "...multimedia-oriented loft communities that have grown up in New York's Silicon Alley area and South of Market Street in San Francisco." (1999: 80).

The only ones left in the city are street people, feeding off debris; immigrants, thrown out like shrapnel from the destruction of the Asian powers; young bohos; and the technomedia priesthood of Mr.Lee's Greater Hong Kong. Young smart people like DaSid and Hiro, who take the risk of living in the city because they like stimulation and they know they can handle it. (1992: 191)

Living in the city, however stimulating, is still a risk. This is not necessarily true for the urban conditions into which today's young ex-suburbanites are entering, though it must be acknowledged that "stimulation" and the adventurous sense of "knowing they can handle it" are motivations for choosing life in the traditionally vilified American city. Thus, while Stephenson sees the boundaries between the formal and the informal society as able to fade somewhat, he sees this happening to very limited extent and having negligible effects upon those hopeless inhabitants of outlaw zones. Outlaw zones remain separate, crumbling enclaves of extreme poverty.

While outlaw zones are scattered throughout the cyberpunk city's sprawling conurbation and beyond, outlaw zones are isolated enclaves often alienated from the larger city, and therefore society, by sections of the city termed by Gibson as, "rubble rings." These rubble rings, which I will discuss subsequently, are even more desolate landscapes of abandonment than that of the outlaw zones and create the boundaries that separate the dual city territories of extreme wealth and outrageous despair.

#### 3.4 RUBBLE RINGS: WASTELANDS AND VACANT SUBURBIA

The rubble rings are Gibson's device for representing the post-industrial wasteland and abandoned suburbs that serve to isolate enclaves from one another and demarcate the



### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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edges of cities and conurbations. The rubble rings both separate the elements that compose the fragmented urban fabric from one other and demarcate the edges of cyberpunk places like Sprawl. In his *Cyberspace Trilogy*, Gibson uses the term “rubble ring” only once when he says, “...The rubble rings that fringe the radioactive core of old Bonn.” (1984: 97). While his descriptions of rubble ring zones are partially driven by an inferred post-nuclear war scenario, Gibson typology occurs repeatedly in reference to the Sprawl suggesting that other phenomena have also contributed to the perseverance of the rubble rings.

The rain came on when he turned east again, making for the Sprawl's fringe 'burbs and the blasted belt country of the industrial zones. (*Count Zero*: 180)

... You could find the parts to almost anything, on Dog Solitude, if you dug long enough; failing that, there were half-dozen towns in rustbelt Jersey with acres of dead machines to pick over (*Mona Lisa Overdrive*: 40)

He brought them in through avenues lined with rusting slopes of dead vehicles, with wrecker's cranes and the black towers of smelters. He kept to the back streets as they eased into the western flank of the Sprawl... (*Count Zero*: 199)

Above, Gibson vividly describes the decay of the post-war, post-industrial and perhaps also, the post-suburban era (Figures 3.7, 3.8). Composed of rusting slopes and black towers of smelters, a blasted belt country is the industrial residue that remains on the edges of the Sprawl. The rubble rings that border the western edge of the Sprawl could correspond to declining East Coast manufacturing centers like Pittsburgh, Pennsylvania and Hagerstown, Maryland. Faced with the globalization of commodities production and an information-based economy, the American industrial sector never recovers from its late 20<sup>th</sup> century decline and once abandoned, it leaves its scars displayed prominently upon the landscape in the form of Gibson's rubble rings.

Today's flourishing suburbs eventually suffer the same fate as that of the industrial production machines. *Do Androids Dream of Electric Sheep*, Philip K. Dick's 1968 science fiction novel, is the first to envision the decline of suburban life and this theme is subsequently adopted by Cyberpunk. In *Do Androids Dream of Electric Sheep*, the aftermath of World War Terminus induces people to, “Emigrate or degenerate! The choice is yours!” (6). Thus, “...people moved out, people emigrated, but nobody ever moved in.” (22). Suburban popu-

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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lations are the first to head for the unpolluted novelty of the “off-world” space colonies. This leaves the suburbs as abandoned landscapes of empty buildings where “...there’s hardly anybody...[and]...the police don’t patrol...”; the few remaining people (those who could not go off-world) are “...expected to watch out for [themselves]...” (130). Eventually those few left in the suburbs choose to live, “...deeper in town where there’s more people.” (199).

In any case, thousands of individuals remained, most of them constellated in urban areas where they could physically see each other, take heart at their mutual presence. Those appeared to be the relatively sane ones. And, in dubious addition to them, occasional peculiar entities remained in the virtually abandoned suburbs. (1968: 13)

Gibson also integrates the seemingly unlikely event of an empty suburban landscape into his narratives. A description of the once-affluent Cleveland suburbs in *Mona Lisa Overdrive* offers an image of negligence, “...Had me drive him back to Cleveland, to this ‘burb. Big old houses but the lawns all long and scraggy. Went to one with a lot of security...” (45) and in *Count Zero*, we see the vestiges of what is left when a speculative real estate market bottoms out in the now hyperdeveloping Southwestern U.S. (Fig. 3.9):

Here’s the venue, Turner.” “What hit it?” Rectangular expanse of concrete spreading to uneven walls of weathered cinderblock. “Economics,” Conroy said. “Before the war. They never finished it. Ten clicks west of here and there’s whole subdivisions, just pavement grids, no houses, nothing. (40)

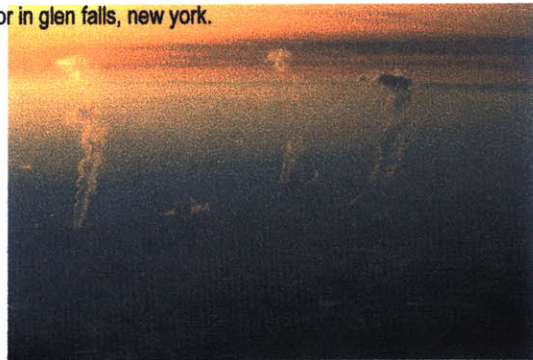
It appears that abandoned suburbs are not solely an American phenomenon of Gibsonian future urban development (or decline) as the post-WWII, Corbusian-inspired Parisian suburbs are also abandoned:

The address Alain had given her, in a grim northern suburb, was one of twenty concrete towers rising from a plain of the same material, speculative real estate from the middle of the previous century...How queer to stroll through this hideous landscape... (Count Zero: 142)

Presumably, those who once lived in the notoriously grim outer suburbs of Paris<sup>3</sup> have migrated to “outlaw zones” within the otherwise restored European center city. Or, those with the means to do so, have either settled within the hermetically sealed historic Euro-

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

three thousand feet above paper mills and a trash incinerator in glen falls, new york.



3.7

abandoned bungalows in los angeles



3.8

south of santa fe, new mexico, a grid of streets with cul-de-sacs scars the desert landscape



3.9

city or fled to the idyllic simulacrum of space colonies. I discuss the European city and space colonies in subsequent sections of this chapter.

So, if the affluent portion of society is no longer living in the suburbs that marked the beginning of the spatially and economically polarized social order that exists in its fully evolved form in cyberpunk fiction, where is the top share of society living? If they are to be found on earth, and presumably within the mega-city fabric of places like The Sprawl, they are most certainly not to be found in outlaw zones or rubble rings. Stephenson offers the most striking vision of future habitation for the wealthy when he extrapolates the current

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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trend of gated communities into the mass-produced, customized neighborhoods he terms “burbclaves”.

#### 3.5 BURBCLAVES

Stephenson’s Burbclaves represent the apparently inevitable evolution of today’s gated communities. Hiro Protagonist of *Snow Crash* tells us, “...Now a Burbclave, that’s the place to live. A city-state with its own constitution, a border, laws, cops, everything.” (6). In the future urbanism of cyberpunk, burbclaves are the mass-produced, neighborhood-sized city-states customized<sup>4</sup> to respond to society’s balkanization by creating ethnically and/or ideologically nationalistic and homogeneous enclaves. Burbclaves, like today’s gated communities, are the places where middle- and upper class America isolates itself from the rest of the city, the country, and the world.

As I explained earlier with regards to the mass-produced city, there are a handful of “franchises”—or burbclave models—that get replicated tirelessly along the landscape. Burbclaves with illustrative names such as White Columns, The Mews at Windsor Heights, or Mr. Lee’s Greater Hong Kong create a sense of exclusivity, prestige and security by fervently enforcing their (self)-segregation and by creating a clear image of association. I refer to an “image of association” as the image created by an environment that physically reflects and acts upon the characteristics or ideology according to which its residents wish to live. Below are two examples of a predicament faced by our two *Snow Crash* protagonists, Hiro and Y.T., as they seek to evade pursuit by The Mafia<sup>5</sup> in the only landscape that surrounds them, the so-called “franchise ghetto” of Burbclaves:

He takes her as far as the entrance to the next Burbclave, which is a White Columns. Very southern, traditional, one of the Apartheid burbclaves. Big ornate sign above the main gate: WHITE PEOPLE ONLY. NON-CAUCASIANS MUST BE PROCESSED. She’s got a White Columns visa...A laser scans it as she careens toward the entrance and the immigration gate swings open for her. It’s an ornate iron-work number, but harried White Columns residents don’t have time to sit idling at the Burbclave entrance watching the gate slowly roll aside in Old South majestic turpitude, so it’s mounted on some kind of electromagnetic railgun. She’s gliding down the antebellum tree-lined lanes of White Columns, one microplantation after another...(1992: 32)

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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Scratch that; Hiro is black, or at least part black. Can't take him into New South Africa. And because Y.T. is a Cauc, they can't go into Metazania. "Mr. Lee's Greater Hong Kong," Hiro says.... "Nice thinking - but they won't let you in with your swords, will they?", "Yes," he says, "because I'm a citizen." Then she sees it. The sign stands out because it is a rare one. Don't see many of these. It is green-and-blue sign, soothing and calm in a glare-torn franchise ghetto. (1992: 83)

As evidenced, each type of Burbclave has its own identity, which is predominantly associated with ethnicity and ideology – for example, New South Africa and White Columns are “apartheid burbclaves” that forbid entrance to people of color. Private security forces strictly enforce the Burbclaves’ borders and immigration gates, making sure that only citizens or those with visas – that presumably ascribe to a given burbclave’s (ethnic) requirements – enter the area. Moreover, each type of Burbclave has its own constitution that delineates the laws for that city-state. These are enforced, once again, by the private security forces that have at their disposal the most advanced in security and surveillance technologies. Below is an excerpt from the constitution for Mr. Lee’s Greater Hong Kong:

It is my pleasure to welcome all quality folks to visiting of Hong Kong. Whether seriously in business or on a fun-loving hijink, make yourself totally homely in this meager environment... The potentials of all ethnic races and anthropologies to merge under a banner of the Three Principles to follow:

1. Information, information, information!,
2. Totally fair marketeering!,
3. Strict ecology!

have been peerless in the history of economic strife... Mr. Lee’s Greater Hong Kong is a private, wholly extraterritorial, sovereign, quasi-national entity not recognized by any other nationalities and in no way affiliated with the former Crown Colony of Hong Kong, which is part of the People’s Republic of China. (1992: 98-99)

Here we see the tension that lies in concurrently living in a fragmented and dispersed society where people reside in sovereign city-states that ascribe to certain characteristics and being subjected to an implied interdependence between an information-based, consumerist economy.

While places that explicitly promote apartheid urban development like the White Columns franchise may be unlikely to rise upon the American landscape, urban areas and suburban peripheries composed of insulated communities divided by physical barriers and personal lifestyle preferences already exist. Gated communities, the current trend that Stephenson

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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extrapolates into the future to conceive of Burbclaves, have existed since the 1960s and have increased in popularity over the past ten years. Most gated communities are currently located in Southern California and in the Sunbelt states like Florida and Arizona and are typically very homogeneous in their upper-middle class social composition. According to Blakely and Snyder (1997), this trend toward gated communities and, in some cases, gated cities represents a, "...retreat from the public realm..." and is, "...a troubling manifestation of the fortress mentality...in America." In their 1997 book, *Fortress America: Gated Communities in the United States*, Blakely and Snyder classify gated communities into three categories:

- 1) **Lifestyle communities** where the gates provide security and separation for the leisure activities within. These include retirement communities and golf and country club leisure developments.
- 2) **Prestige communities**, which lack the amenities of the Lifestyle communities, but where the gates still are valued as markers of distinction and status.

The Lifestyle and Prestige communities are developer-built, and primarily suburban. They range from the enclaves of the rich and famous to the subdivisions of the working class... [And]

- 3) **Security Zone[s]**, where trouble with crime or traffic and fear of outsiders are the most common motivations. In these cases residents, not developers, install gates and fences to their previously open neighborhoods.

Stephenson's Burbclaves combine the aspirations of all three categories of gated communities. Burbclaves provide the amenities necessary for whichever lifestyle you conform to, they are symbols of prestige and elitism – as determined by the type of burbclave for which you qualify or within which you choose to live – and they ensure security from the outside world (i.e. from the outlaw zones and rubble rings). Burbclaves are the hermetically sealed enclaves that epitomize the privatization of at least two entities that are quintessentially public – the street and urban life.

#### [3.6 A BIG PICTURE]

Thus far, I have discussed the five most relevant elements of the future American city (and to a lesser extent Asia and Europe): Conurbation, Mega Structures, Outlaw Zones, Rubble Rings, Burbclaves (refer to Fig. 3.2). These five elements combine to physically express the concurrent phenomena of growth and decay and wealth and poverty. What does the physical aggregate of the five elements that I have discussed thus far amount to in the cyberpunk future city? Stephenson's *Snow Crash* offers us a passage depicting the regional morphology of future (and present) L.A. that approximates a general idea of what happens when the five elements interact:

The old central neighborhoods are packed in tight below an eternal, organic haze. In other cities, you breathe industrial contaminants, but in L.A., you breathe amino acids. The hazy sprawl is ringed and netted with glowing lines, like hot wires in a toaster. At the outlet of the canyon, it comes close enough that the light sharpens and breaks up into stars, arches, glowing letters. Streams of red and white corpuscles throb down highways to the fuzzy logic of intelligent traffic lights. Farther away, spreading across the basin, a million sprightly logos smear into solid arcs, like geometric points merging into curves. To either side of the franchise ghettos, the loglo dwindles across a few shallow layers of development and into a surrounding dimness that is burst here and there by the blaze of a security spotlight in someone's backyard. (190)

The overall image that this passage evokes is that of an interminable conurbation. The old central neighborhoods under a haze of amino acids relate directly to outlaw zones. The franchise ghettos spread across the basin refer to burbclaves. The shallow layers of development can be interpreted as the abandoned suburbs of the rubble rings. And finally, from Davis' "Fortress L.A." chapter in *City of Quartz* (1990) we are already familiar with the mega-structures of L.A.'s downtown, "...the nation's largest corporate citadel, segregated from the poor neighborhoods around it by a monumental architectural glacis." (223).

The last two elements that characterize the physical aspects of cyberpunk future urban life are Preservation Zones, which mostly apply to the European city but are also present in Asian and American cities, and the Space Colonies, which allow people to escape the deterioration of urban life on earth for the "perfection" of controlled environments in space.

#### 3.7 PRESERVATION ZONES

The Preservation Zones are the cyberpunk city's equivalent of today's historic urban cores and districts. According to Gibson, as we would nevertheless expect, preservation zones are at their most genuine in European cities and at their most fabricated in Asia. In *Mona Lisa Overdrive* (1988), when the young daughter of a Yakuza boss (a Japanese-brand of corporate mafia) gives us her first impressions of a much-like-today London, we see the juxtaposition between the inherent historicity of Europe and the deliberateness behind the preservation and fabrication of physical history in Asia:

This was nothing like Tokyo, where the past, all that remained of it, was nurtured with a nervous care. History there had become a quantity, a rare thing, parceled out by government and preserved by law and corporate funding. Here it seemed the very fabric of things, as if the city were a single growth of stone and brick, uncounted strata of message and meaning, age upon age, generated over the centuries to the dictates of some now-all-but-unreadable DNA of commerce and empire (5).

Thus, we can assume that preservation zones in Europe encompass the totality of the historic urban cores of cities like Paris where renovation is a perpetual act. "Andrea lived in the Quartier des Ternes, where her ancient building, like the others in her street, awaited sandblasting by the city's relentless renovators." (1988: 48). The "relentless renovation" of physical history comes as a direct response, Harvey would argue, to a search for historical roots, which in turn signifies the search for a more secure anchor in an incessantly shifting world (1990). And this is very likely the reason for which Asian cities like Tokyo and Singapore, which under the presently apparent urban development mantra of, "bigger, better, faster, more" are leaving a scarce physical history thus necessitating very deliberate acts of historical preservation (and fabrication) in the future.

Gibson does not identify preservation zones in the narratives located in the American City but it is probably not far-fetched to assume that they take the form of Sorkin's urban "theme parks" (1995) or reflect Baudrillard's, "...society organized around simulation" (Kellner: 297). For example, Gibson's description of New York's New Suzuki Envoy hotel shows a more broad interpretation of the term, "preservation zone":



### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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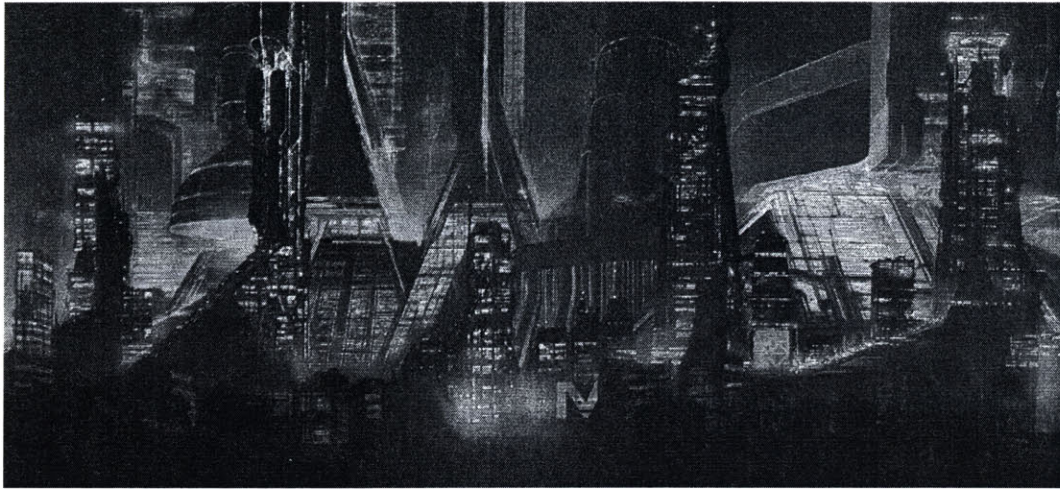
It maintained its street wall for eleven stories, then narrowed jaggedly, at the first of nine setbacks, into a mountainside assembled from bedrock excavated from its Madison Square building site. Original plans had called for this steep landscape to be planted with flora native to the Hudson valley region, and populated with suitable fauna, but subsequent construction of the first Manhattan Dome had made it necessary to hire a Paris-based eco-design team. The French ecologists, accustomed to the “pure” design problems posed by orbital systems, had despaired of the Sprawl’s particulate-laden atmosphere, opting for heavily engineered strains of vegetation and robotic fauna of the sort encountered in children’s theme parks... (1988: 221).

Evidence of physically simulated environments is prevalent all over our present urban landscapes from Times Square to Las Vegas. The best example is located in our prototypical, it seems, cyberpunk city of Los Angeles. Universal Studios’ City Walk attempts to create a Main Street experience in a controlled environment for the traditional urban experience-deprived. Of course, much like the Festival Marketplaces of the late 1970s and 80s, City Walk is merely the means to a desired end – the consumption of goods and entertainment. There exists, then, a dual role for preservation zones in the future city. First, preservation zones satisfy the desire to create some sense of stability and continuity in an incessantly changing social and economic landscape and second, preservation zones create more “meaningful” spaces for consumption. In the cyberpunks’ future vision of urban life, however, space colonies offer more alluring spaces for the mass consumption of every consumable commodity – information, entertainment, goods, and all-out hedonism.

### 3.8 SPACE COLONIES

Philip K. Dick introduces the notion of off-world settlements in *Do Androids Dream of Electric Sheep?* as a reaction to intense levels of contamination on earth (Fig. 3.10). This archetype is later adopted by Gibson in his *Cyberspace Trilogy* and also serves as an important element in the cyberpunk cinematic narratives of Scott’s “Blade Runner”(1982) and Besson’s “The Fifth Element” (1997). While the rationale behind off-world colonies in the film “Blade Runner” is consistent with that in Dick’s novel, on which the film is based, in the *Cyberspace Trilogy*, as in “The Fifth Element”, space colonies are considered places of consumption, leisure and entertainment. In both cases, however, space colonies are the

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY



3.10

places where those with the means to do so escape the grimness of the uncontrollable decadence of earth. For Dick, and thus also Scott, space colonization provides humans an alternative to life in a contaminated earth environment after the nuclear holocaust from what Dick terms, World War Terminus (WWT). Emigration to New America, the main U.S. settlement on the colony planet of Mars, is spurred by WWT's radioactive fallout and the pull factor of a guaranteed supply of organic androids (a humanoid robot) as servants and slaves to space colony emigrants. Those left on earth suffer a grim post-WWT fate in urban landscapes consistent with the aforementioned physical zones of informality, environmental degradation, and abandonment of the cyberpunk city (Fig. 3.10):

He simply had wandered to this spot in the early days following the war. In those evil times no one had known, really, what they were doing. Populations, detached by the war, had roamed, squatted temporarily at first one region and then another. Back then the fallout had been sporadic and highly variable; some states had been nearly free of it, others became saturated. The displaced populations moved as the dust moved. The peninsula south of San Francisco had been at first dust-free, and a great body of persons had responded by taking up residence there; when the dust arrived, some had died and the rest had departed. (1968: 14)

Those who do not emigrate, as stated beforehand, must suffer, just as the physical environment, the inevitable fate of disintegrating. In "Blade Runner" this is a constant reminder to the remaining inhabitants of Los Angeles 2019 through the zeppelin-powered off-world advertisements that hover overhead.

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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For Gibson's and Bresson's narratives, the option between remaining on earth or colonizing space is not so much a matter of life and death but more a matter of quality of life. There are several types of space colonies for Gibson. One incarnation, known as Freeside, creates artificial landscapes in a spindle-like mega-enclosure composed of the "best" earth once had to offer: the recorded blue of a Cannes sky, the abstract imitation of a Bermudan sunset, genetically engineered and chemically manipulated trees, classic European boulevards, placid meadows, grandiose opera halls (Fig. 3.11). These simulacra are orchestrated to concentrate and facilitate consumption functions. "...Customs, for Freeside, consisted mainly of proving your credit." (1984: 123).

Archipelago...The islands. Torus, spindle, cluster. Human DNA spreading out from gravity's steep well like an oilslick....Freeside. Freeside 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... (1984: 101)

The colonies in space are organized in the form of an archipelago of islands. Though the most prevalent rationale for space colonies is consumption, as in Freeside, this is not the only type of space colony active in the human constructed and controlled space islands. Originally, space colonies housed marginal or illicit activities such as orbital drug produc-



Rick Guidice, "Sport in Space Colony," ca. 1977

3.11

### 3.0 PHYSICAL ZONES OF THE CYBERPUNK CITY

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tion, data havens, and military exercises. Once abandoned, these space colonies were sometimes inhabited by space squatters and, at times, evolved into places like New Zion (Gibson, 1984). As indicated by its name, New Zion is a nationalistic space enclave of Rastafarians who achieve a sense of community, much in the same manner as the privileged do on earth in burbclaves, through cultural and ethnic homogeneity.

All in all, the space colonies, both in their earlier manifestation by Dick as refuges from a contaminated earth and in their later evolution in Gibson as playgrounds for consumption exhibit the basic theme of an escape from the grimness of urban life on earth. If we do not see vibrant urban life on earth, it is because playgrounds in space have supplanted urban life. The space colonies, however, are not the only means of escaping a decadent terrestrial life. In the future (as in the present), a rapidly changing, evolving, and seductively enticing virtual world provides an alternative concomitant to physical reality.

<sup>1</sup> The Vermont Forum on Sprawl defines "sprawl" as, "...dispersed development outside of compact urban and village centers along highways and in rural countryside", <http://www.plannersweb.com>

<sup>2</sup> WNET American Masters archive: Bucky Fuller, <http://www.wnet.org/archive/bucky/cities.html>  
Page 32 of 605/18/00

<sup>3</sup> For a very good depiction of life in the *banlieus* of Paris see the film, "La Haine"(1995).

<sup>4</sup> Burbclaves are a nefarious mutation of the term "mass customization", or automated personalization, that Mitchell cites in *E-topia* (1999, 150)

<sup>5</sup> In *Snow Crash*, The Mafia is an omnipotent multi-national corporation that operates millions of Cosa Nostra Pizza Franchulates throughout the world/USA(?)

## 4.0 CYBERPUNK VIRTUAL SPACE

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Cyberspace represents... a completely malleable realm of transitory data structures in which historical time is measured in nanoseconds and spatiality somehow exists both globally *and* invisibly. (Bukatman: 18)

In this chapter I examine virtual spaces as described by the cyberpunk narratives of William Gibson in his *Cyberspace Trilogy* (1984, 1986a, 1988) and Neal Stephenson in *Snow Crash* (1992). I first relate Gibson's and Stephenson's interpretations of virtual space to their interpretations of physical space by looking at cyberspace through the lenses of postmodernism theory and cultural/media studies. I then detail the characteristics of Gibson's cyberspace Matrix and Stephenson's Metaverse and see how these relate to the physical world and in what sense they can apply to urban design. Finally, I briefly look at two existing virtual worlds, Alpha World and Metatropolis (the latter inspired by Stephenson's Metaverse), to see how urban space is actually being imaged on the Internet.

As I detailed in the previous two chapters, cyberpunk narratives postulate that if current urban development trends continue, physical urban space will degenerate further as it becomes more dispersed and fragmented. On the other hand, as I will show in this chapter, the advent of virtual space is enabling greater concentration and connectivity of information and activities. In spite of these evidently diametrical circumstances, in examining how Gibson and Stephenson postulate their visions of the virtual world, we will see that there seems to be a common relationship between the physical and the virtual realms. First, I define cyberspace and its attendant virtual worlds, second, I detail the dynamics of the physical-virtual relationship, and third, I provide a possible explanation of how the dialectic between physical and virtual space functions.

Cyberspace is a broad term that encompasses different technologies that share the ability to simulate environments within which people can non-physically interact (Featherstone and Burrows, 1995: 5). The environments that are simulated in cyberspace are presumably boundless, although the physical parameters of contemporary cyberspace are delineated by the space of the computer monitor (Bukatman, 1995: 105). Virtual Reality (VR) is a highly sophisticated technology in cyberspace that provides the user with, according to

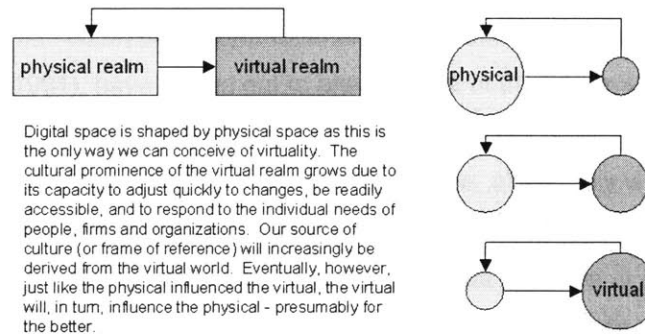
Featherstone and Burrows, a "... total sensory immersion in the artificial environment..." (3) as it "...surrounds the body with an artificial sensorium of sight, sound and touch. VR systems are...truly interactive in the sense that the computer which produces the simulated environment..., constantly reconfigures that environment in response to body movements." (6). Our contemporary Internet reality adheres to the most broad and basic characterization of cyberspace; it is a technology that simulates environments within which people can non-physically interact. The Gibson/Stephenson virtual spaces, on the other hand, combine the information retrieval and social aspects of cyberspace with the interactive response and simulated co-presence capabilities of Virtual Reality. Thus, the Matrix and the Metaverse are more advanced digital spaces than those of the present and possibly represent the future direction of the Internet – a sensorial immersion into cyberspace through sophisticated virtual reality technologies.

The associated dynamic between virtual and physical space evolves as follows. First, cyberspace appropriates and sometimes displaces certain historically "urban" functions and makes them accessible to be electronically present everywhere (and nowhere) at once. Campanella comments that the displacement of information is arguably the most profound effect of digital technology (1998).<sup>1</sup> But in usurping city functions, cyberspace also simulates (in Baudrillard's sense of the word)<sup>2</sup> the city's information order in form and function. Therefore, the structure of cyberspace has its direct precursor in urban form.

Bukatman suggests that Gibson's inspiration for the way he spatialized virtuality in his cyberspace Matrix comes from intense cityscapes such as those of Las Vegas, Times Square or Tokyo – dark, crowded, and broken by neon forms and corporate structures. (1995: 121). And, Featherstone and Burrows propose that the world of cyberspace itself functions as a digitized parallel urban environment. "This digitized urban hyperreality connects in various ways with the technological 'reality' of the street, not least in the way in which the socio-geography of the digitized city mirrors that of the built form" (1995: 10-11). Finally, cyberspace enables an "engaged retreat" from the city/physical realm. It not only offers the ultimate possibility of corporeal displacement from the confines of our immediate lived spaces, but it is also a more efficient means of controlling our environments (Featherstone

shift in our source of culture (or frame of reference) from the physical to the virtual realm

4.1



and Burrows: 2); because after all, the virtual is not “real”, it is hyperreal. “Simulation becomes a function of telematic culture and the expression of new technologies that substitute for experiential reality – the *digital* has replaced the *tactile*” (Bukatman: 107).

Thus, in the so called “information age”, virtual space is the inevitable child of physical space (Fig. 4.1). Virtual space is only possible and can only exist because of physical space. After all, we need physical places to sleep and eat. Thus a retreat into virtual space can probably go as far as Gibson and Stephenson have taken it – a sensorial immersion into digital space. But, in light of the severe cyberpunk landscapes described in the previous two chapters, it is clear that with its Utopian potential, virtual space is a seductively irresistible retreat. As such, we can predict that cyberspace will become increasingly influential and eventually supplant the city as the “frame of reference” or the “source of culture” for society (Fig. 4.1). However, virtuality can not destroy physicality. Digital spaces simply become the cultural dominant and thus its needs, activities and products must inevitably affect changes in the physical environment. But, in what way will virtual space influence physical space? Though I present the issues through descriptions of Gibson’s and Stephenson’s virtual worlds below, I will further explore the implications of this question in my conclusion.

While it is presently clear that the rapid development of communications technologies in the past decade has significantly altered the way we interact socially and otherwise, it is



also becoming apparent that the city maintains its role in generating the products to be exchanged by the communications technologies.<sup>3</sup> Cities, at least the so-called “global” ones (Sassen, 1991), have turned out to play the role of the command and control centers of the technology-driven, contemporary information economy. Implicitly, the narratives of Gibson and Stephenson take this last point to be true, albeit they withhold reservation at the grim scenarios and gross inequalities of the urban landscapes I detailed in the previous two chapters. We are realizing, reassuringly, that most early predictions about the nullifying effects of communications technology upon the urban realm (Toffler, 1981; McLuhan, 1967) have yet to materialize. And as the communications technologies become wireless and more mobile (cellular phones, palmtops, wearable computing) people will be less likely to remain at home behind the desktop. Though, as we will see through the course of this chapter, the possibility also exists that we may spend more time “jacked in”.

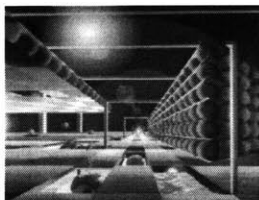
### 4.1 CYBERSPACE: THE MATRIX

William Gibson is widely cited as having coined the term “cyberspace” almost ten years before the World Wide Web was launched into existence. In a sense, Gibson spatialized, even if fictionally, a relationship between people and information that was occurring virtually in textual formats through Internet channels like ARPANET and electronic bulletin boards.<sup>4</sup> In elaborating the virtual realm for *Neuromancer* (1984), Gibson builds upon the precedent of virtual space that he had already established in his short story, *Burning Chrome* (1981). In his Cyberspace Trilogy, Gibson also complements his concept of a virtual dataspace through sim-stims (simulated stimulation) – the decisive rendition of Virtual Reality – and further explores the idea of cyberspace in his subsequent novels, *Count Zero* (1986a), *Mona Lisa Overdrive* (1988).

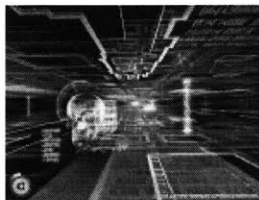
In *Burning Chrome*, Gibson introduces his concept of “the Matrix”, which he also calls “cyberspace”, as “...an abstract representation of the relationships between data systems.”(1986b: 169) This “simulation matrix” is an “...electronic consensus-hallucination that facilitates the handling and exchange of massive quantities of data” (1986b: 170). The

consensual hallucination is achieved by “jacking in” to (interfacing with) the Matrix through a “cyberspace deck” (computer) using “trodes” (goggles/head sets). The massive quantities of corporate data held in the Matrix are represented by bright geometries set upon a nonspace, but three-dimensional lattice configuration, an arrangement analogous to buildings set upon an urban grid or pawns upon a chessboard (Fig. 4.2). Examples of bright corporate geometries take the form of a “stepped scarlet pyramid of the Eastern Seaboard Fission authority,” (reminiscent of the Mayan-temple inspired Tyrell corporate arcology in the film “Bladerunner”), “...green cubes of Mitsubishi Bank of America...and...the spiral arms of military systems.” (1984: 52).

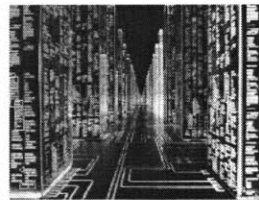
When jacked in, though bodiless, the “console cowboy” (i.e. hacker) is nevertheless totally engaged in the spatial experience of cyberspace. S/he roller coasts through a “...fraying maze of shadow walls, gray cathedral spaces between...bright towers.”(182) (Fig. 4.3). “The matrix unfolds itself around [the hacker] like an origami trick” (1981: 188). Gibson is astute to point out that the computer console, when coupled with the boundless matrix, is a powerful tool in collapsing the force of distance. The off-world banks at Freeside are as easily accessed as the financial district of Atlanta (1984: 77), because cyberspace, as presented through the computer interface, has “...no particular relationship with the deck’s physical whereabouts” (1984: 105). Yet sometimes, whether or not one’s virtual world is related to one’s physical world is irrelevant. Cyberspace can simply be an escape from the grim physical realities of the postmodern cyberpunk city; virtual space has the malleability to be a place you construct and control. “This is my space, my construct. This is L.A., boy. People here don’t do *anything* without jacking. This is where I *entertain!*” (1986a: 212).



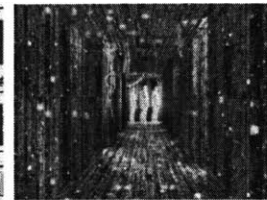
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4.3



4.4



4.5

While cyberspace is physically aspatial, Gibson frequently adopts urban imagery in order to narrativize and spatialize the electronic field (Bukatman: 115). The following passage, which seems to best define “Gibsonian cyberspace”, a term in Featherstone and Burrows (1995), (and is probably the most quoted passage of cyberpunk literature), concludes by imaging cyberspace in urban terms:

Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation...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.... (1984: 51)

The unthinkable complexity of virtual space seems to be best paralleled by the venerable complexity of urban systems. Recognizing the counter-intuitiveness of spatializing electronic fields, Gibson uses metaphors of urban form to illustrate the structure of the virtual: “Like city lights, receding...” (1984: 51), or “Ninsei as a field of data,” (1984: 16) and, “an endless neon cityscape” (1984: 256). Moreover, the data fields corresponding to Manhattan take the shape of “...identical towers of data, each one a blue neon replica of the Manhattan skyscraper.” (1984: 257) (Fig. 4.4). Interestingly, just as the Manhattan grid was laid down to allow the maximum densification of available space, to permit a constant flow, and to ease circulation, so the shape and structure of the matrix serves to ease navigation and orientation in the virtual nonspace:

People jacked in so they could hustle. Put the trodes on and they were out there, all the data in the world stacked up like one big neon city, so you could cruise around and have a kind of grip on it, visually anyways, because if you didn't, it was too complicated, trying to find your way to a particular piece of data you needed. Iconics. (1988: 16)

Virtual data space does more than just parallel the shape of physical space in form; it also conforms to the global positioning of the data. Excursions into the cyberspace matrix can be tracked according to the coordinates (hence, Gibson's use of the word “matrix”) that correspond to the data's, or the hacker's, place of origin. Data densities in the matrix, like urban densities, can also help determine the dynamism of a physical place. For example, sparsely occupied sectors of the matrix represent those geographical areas that, “...had

once been known as the Third World” (1986b: 120). In fact, Gibson describes an incident in *Count Zero* of a rogue hacker who, by taking advantage of the electronic vulnerability of such places, in one week brought about the collapse of several African governments, causing untold human suffering (121). The vulnerability of the physical world to the virtual world thus exemplifies the eventually inevitable recursive relationship between the virtual and the physical. In fact, the idea behind the origins of the Internet consisted of creating a virtual space where intelligence would be insulated from sabotage because the information would be disengaged from geography (where it could be bombed, for example) (Mitchell, 1995). Nowadays, however, it seems that information may be more vulnerable than before. Gibson’s *Matrix*, essentially, shows how “console cowboys” can access and steal information from anywhere in the world without having to move from their consoles. Since information is now everywhere at once, since it is located in what Sorkin calls an “instrument of instant artificial adjacency” (Campanella, 1998), this facilitates the work of hackers and computer viruses in appropriating and destroying virtual systems. Therefore, “Small groups or individual “console cowboys” can wield tremendous power over governments, corporations, etc.” (Rucker et al., 1992), as we recently saw with the Love Bug computer virus.<sup>5</sup>

Gentry, one of Gibson’s residents of Dog Solitude in *Mona Lisa Overdrive*, holds the obsessive conviction that cyberspace has an overall total form – like a city, or a continent, or earth – and makes finding the Shape his lifelong ambition. But can cyberspace have a universal shape? “*There’s no there, there...*” apparently. “They taught that to children, explaining cyberspace.” (1988: 48) Slick, Gentry’s sidekick, however, relies on his knowledge that cyberspace is a construct – “...just a way of representing data...” (1988: 75-6). The corporate data geometries do not *have* to look the way they do. But since Gibson implicitly asserts that cyberspace is indeed a simulation of the city’s information order, as Davis (1992) suggests, then the Shape, however unthinkably complex, should exist – though it may vary internally according to different places’ “architecture of cyberspace”:

The yellow plain... roofed the London Stock Exchange and related City entities... [he] was pointing out various structures like a tour guide... Kumiko looked up at the architecture of cyberspace... explaining humanity’s need for this information-space. Icon, waypoints, artificial realities... (1988: 264)

A literal interpretation, in some respects, of Gibson's concept of the matrix as a spatial representation of information appears in the 1999 film "The Matrix" where cyberspace, which undergirds and controls the "real" world, is plainly illustrated in code, its truest form (Fig. 4.5).

The "disembodied immersion" into virtual space can also be achieved through "simstim", or simulated stimulation. Simstim, "...entails the *faux* inhabitation of celebrity bodies, by way of digital recordings of the sensory experiences of star performers in soap-like scenarios" (Clark, 1995: 123). Scorned by the hardcore console cowboys as, "...gratuitous multiplication of flesh input" (1984: 55), simstims allude to Virtual Reality and are thus the bodily equivalent of simulacra. Through simstim, one can experience – in body and in mind – all that the celebrity *du jour* experiences. But, "...The sinister thing about a simstim construct...was that it carried the suggestion that any environment might be unreal, that the windows of the shopfronts...might be figments." (1986a: 139). In *Count Zero*, Gibson extends this notion of corporeal simulacra beyond simstims to what he calls, "sensory link".<sup>6</sup> Virek is the wealthiest individual in the world (and galaxy, perhaps?) and is wont to hold business meetings at Gaudí's Parc Güell in Barcelona. Only, Virek does not live in Barcelona – he does not really live *anywhere*. Unbeknownst to the world, Virek is actually a collection of cells contained in a vat in some "hideous industrial suburb of Stockholm" (1986a: 13). But he is embodied in very detailed figments of real places that are located in virtual space through sensory link. When he has to physically appear somewhere, he uses a hologram double. "Was he always there, she wondered, in Gaudi's park, in an afternoon that never ended?" (1986a: 138).

### 4.2 THE METAVERSE

While Gibson only implicitly alludes to the recursive relationship between the physical urban world and his virtual information spaces, Stephenson is very explicit about the form and purpose of the computer generated universe in *Snow Crash* (1992), which he calls the Metaverse. The Metaverse also presages the mainstream popularization of the World Wide Web, though it clearly draws its inspiration from Gibson's cyberspace Matrix. The

Metaverse adopts the notion of the city as an information and interaction space very literally and therefore creates a detailed, urban system in cyberspace. The Metaverse is part virtual reality and part information repository, but more than anything the Metaverse is a socially oriented construct where people from all around the world can simultaneously gather. This last role of the Metaverse is made explicit through the inclusion of pieces of software called avatars, the audiovisual bodies that people use to communicate with each other in Stephenson's cyberspace (Stephenson: 35-6).

The Metaverse contains all of the elements that once accommodated public life in the physical traditional city but are being lost in the fragmented postmodern city. It is the closest to a real world that the virtual can get. The principal element of the Metaverse is the Street. "It is the Broadway, the Champs-Elysees of the Metaverse...It does not really exist. But right now, millions of people are walking up and down it" (24).

Like any place in Reality, the Street is subject to development. Developers can build their own small streets feeding off of the main one. They can build buildings, parks, signs, as well as things that do not exist in Reality, such as vast hovering overhead light shows, special neighborhoods where the rules of three-dimensional spacetime are ignored, and free-combat zones where people can go to hunt and kill each other (24).

The Metaverse, and particularly the Street – since there are no regulations there – is like a *laissez-faire*, build-it-yourself Utopia. We will see this level of the individual's control over (digital) space in my discussion of the Active World virtual "building environments" at the end of this chapter.

In following with the traditions of urban form, and as the main axis of the Metaverse, the Street is the densest sector of this virtual urbanity, particularly in the Downtown area.<sup>7</sup> And because the Metaverse is virtual *and* global, the level of density is that of a dozen megacities.

So it's always a shock to step out onto the Street, where everything seems to be a mile high. This is Downtown, the most heavily developed area. If you go a couple of hundred kilometers in either direction, the development will taper down to almost nothing, just a thin chain of streetlights... But Downtown is a dozen Manhattans, embroidered with neon and stacked on top of each other (24).

This brings us back to the cinematic imagery of the hyper vertical future cities of “Metropolis”, “Things to Come”, “Bladerunner”, and “The Fifth Element”. Stephenson further alludes to this imagery, particularly that of the latter two films, in explaining Downtown in the Metaverse. “The sky and the ground are black...; it is always nighttime in the Metaverse, and the Street is always garish and brilliant, like Las Vegas freed from constraints of physics and finance.” (26) Consistent with the extraordinary dimensions of the Metaverse, the Street is a grand boulevard that goes all the way around the circumference of the black sphere which casts the universal form of the Metaverse. “That makes [the Street] 65,536 kilometers around, which is considerably bigger than Earth.” (24). Therefore,

... about sixty million people... can be on the Street at any given time. Add in another sixty million or so who can't really afford it but go there anyway, by using public machines,... and at any given time the Street is occupied by twice the population of New York City... That's why the damn place is so overdeveloped. Put in a sign or a building on the Street and the hundred million richest, hippest, best-connected people on earth will see it every day of their lives (24-7).

It is apparent by this last passage how the Metaverse is different from Gibson's matrix. The latter is concerned with the virtual storage and representation of information systems (it is the hackers who “surf” through the dataspheres), whereas the former constructs a representation of reality in order to bring people and information together and facilitate and emphasize the exchange and dissemination of that information. In a sense, the inevitability of Internet phenomena like the e-commerce “dot coms” and the ubiquitous advertising banners on Web pages are illustrated in the development process of Stephenson's Metaverse. “Put in a sign or a building on the Street and the hundred million richest, hippest, best-connected people on *earth* will see it every day of their lives” (26).<sup>8</sup> But then again, the dual city is to a limited extent reflected in a digital divide that also exists in the Metaverse. Those who are not the richest and best-connected can still access the Metaverse through public Street terminals, “...a wraparound stainless steel booth stuck between a phone booth... and a pinball machine.” (220). But their means of accessing the Metaverse is immediately made apparent through the appearance of their avatars.

... People in the Street are giving her dirty looks because she's just coming in from a shitty public terminal. She's a trashy black-and-white person. The built-up part of the Street, around Port Zero, forms a luminescent thunderhead off to her right.

She'd like to go into town, but that's an expensive part of the Street to visit, and she'd be dumping money into the coin slot about every one-tenth of a millisecond (220).

The Street and Downtown are not developed as homogeneous environments, some areas are more expensive than others; the suggestion above is that users must pay according to the area of the Metaverse s/he is visiting. Could we assume, then, that the Metaverse is almost as socially unequal and commodified as the cyberpunk city?

Notwithstanding, the other elements of the Metaverse appear to be as idyllic as they could possibly be. Elsewhere in the virtual universe there are distinct residential neighborhoods (with a couple of Frank Lloyd Wright reproductions and some fancy Victoriana), vibrant public spaces, a fashionable public transit system and even, the much beloved by Americans, low-density sprawl.

Hiro Protagonist has a house in one of the Metaverse's oldest neighborhoods, a neighborhood of hackers just off the busiest part of the Street. The fact that "Hiro has a nice big house in the Metaverse but has to share a 20-by-30 in Reality" partly illustrates why Hiro spends most of his time in the Metaverse. In his words, "It beats the shit out of the U-Stor-It." (24). The Metaverse provides a pseudo-utopian space where people can customize and inhabit the types of places that have since been lost either to time or to what Jameson calls, "the culture of late-capitalism" which, as shown in the earlier chapters of this thesis, produces placelessness, informality and oppression. For example, Hiro's house is Nipponese, complete with tatami mats and paper screens to evoke his mother's Asian heritage. The entrepreneur Ng, reminiscent of Gibson's Virek, is severely disabled in reality and thus transacts most of his actions in the virtual realm, which, we presume, reflects his idealized life.

In Reality, he is somewhere in Southern California... In the Metaverse, he lives outside of town, around Port 2, where things really start to spread out. Ng's Metaverse home is a French colonial villa in the prewar village of My Tho in the Mekong Delta. Visiting him is like going to Vietnam in about 1955, except that you don't have to get all sweaty... He has a large office with French doors and a balcony looking out over endless rice paddies where little Vietnamese people work (220-221).



“So while cyberspace frequently recapitulates the complexities of the postmodern ‘urban nonplace,’ it frequently permits the subject a utopian and kinetic *liberation* from the very limits of urban existence” (Bukatman: 146). Significantly, a virtual space in the detailed form of the Metaverse offers the ultimate possibility of the displacement of the material body from the confines physical reality (Featherstone and Burrows: 2). Stephenson gives an amusing illustration of the physical safety that cyberspace provides in describing the reasons for the popularity of the Movie Star Quadrant:

Actors love to come here because...they always look as good as they do in the movies. And unlike a bar or club in Reality, they can get into this place without physically having to leave their mansion, hotel suite, ski lodge, private airline cabin, or whatever. They can strut their stuff and visit with their friends without any exposure to kidnappers, paparazzi, script-flingers, assassins, ... psycho fans, marriage proposals, or gossip columnists (66).

The Metaverse also allows for a full expression of public life through both the vibrancy of the Street and a public space that is set, “...deep hole in the hyper-Manhattan skyline” and contains a mile-wide open plaza. It is “...a park of sorts where avatars can gather for concerts and conventions and festivals.” (433). Most of the plaza is occupied by a deep amphitheater that holds almost a million avatars at once. To further the utopian public spirit of the Metaverse, the monorail that runs down the middle of the Street is a popular public utility that both enables avatars to change their location effortlessly on the Street or to simply travel around touring the sights of the Metaverse.

Stephenson credits the avatar as the reason for the success of the Metaverse. Avatars, whose use is presently widespread on the Web on sites like Active Worlds, which I discuss in the subsequent section, are the graphic representations of your virtual identity. In the Metaverse, avatars show something close to real emotion, which allows for the simulation of more intimate social interactions.

... Just ask the businessmen in the Nipponese Quadrant. They come here to talk turkey with suits from around the world, and they consider it just as good as a face-to-face... They pay attention to the facial expressions and body language of the people they are talking to. And that’s how they know what’s going on inside a person’s head – by condensing fact from the vapor of nuance (64).

While the virtual spaces provide extraordinary advantages, mostly related to the fact that they collapse distances and time and extend our capability to control our environments more completely and efficiently, the Metaverse remains a *simulation* of reality. Like Gibson's Matrix, the Metaverse is a computer-graphics protocol. Hiro Protagonist accesses the Metaverse through a set of shiny goggles with earphones that wrap around his head (the equivalent of Gibson's "trodes"). The goggles throw a smoky haze around his eyes and reflect an image of the virtual spaces of the Metaverse which hang in front of Hiro's "view of Reality" (23).

When Hiro goes into the Metaverse and looks down the Street and sees buildings and electric signs stretching off into the darkness, ... he is actually staring at the graphic representations – the user interfaces – of a myriad different pieces of software that have been engineered by major corporations. In order to place these things on the Street, they have had to get approval by the [protocol group], have had to buy frontage on the Street, get zoning approval, obtain permits, bribe inspectors, the whole bit... (23).

Simultaneously being physically in reality but metaphysically in virtuality is not unimaginable and, in fact, advances in wearable computing (see the MIT Media Lab's Rememberance Agent mentioned in Chapter 2) and implants are already producing cyborgs that could potentially harness such a capacity.<sup>9</sup>

### 4.2 CONTEMPORARY VIRTUALITY

The digital or virtual graphical worlds that presently exist on the Internet are "...interactive, on-line, multi-user environments that emphasize social interaction or discussion and usually let participants decide on self-representation and permit users to create objects within the world" (Beamish: 1998). Ryan states that, "... There has been little study of the development of digital built environment... nor of the potential impact of these environments on existing environments" (1999). Ryan sees it important for the urban design field to take note of digital settlements for three reasons. First, current graphical worlds are the early manifestations of rapidly emerging technology and an increasingly popular form of human interaction and as such, there is great potential for many more cities of this nature. Second, though digital settlements are fundamentally different from physical cities, it is intriguing to speculate on their similarities and explore what those similarities imply about

the development of urban form. And third, it is an opportunity for the design professions to become involved in designing these virtual worlds. As we will see, contributions by urban designers to the development of emerging digital environments would be very valuable. Without our increased involvement, "...the design of online environments will suffer, and the design professions will be marginalized from an increasingly significant component of the online environment" (Ryan: 1999).

Current graphical worlds are composed around three principal purposes (Beamish: 1998):

- **social interaction** – individuals visit the virtual worlds to "chat" in real-time.
- **construction of worlds** – the virtual worlds provide an environment for participants to build buildings and colonize territories.
- **simulation of cities** – instead of creating new imaginary virtual settlements, these sites recreate existing real-life cities.

Usually, the graphical worlds will combine social interaction with both building and colonizing or simulation. In order to examine how these existing virtual worlds function, this section will focus on Active Worlds, a portal that contains over 1,000 virtual worlds. Fantasy and reality alike are represented in Active Worlds: you can colonize Mars, explore Atlantis, pioneer in Yellowstone, or reside in neo-suburban AlphaWorld, climb the skyscrapers of Metropolis, or simply tour around a foreign city, all the while chatting with other participants. Users participate in these virtual worlds much in the same way described in *Snow Crash*, via the 3D Active Worlds browser through humanoid avatars, the three dimensional representation of individuals that are visible to other avatars (Fig. 4.6). Each person has his/her own avatar and through them can explore, chat, and build in the virtual worlds. Avatars have the ability to run, jump, fly, dance and (if you have a particularly sophisticated avatar) express a range of emotions and actions. (Flying is an alluring function since it allows an aerial view of the virtual world you are visiting.) Through the browser, avatars also have the ability to teleport to quickly arrive in other locations and to instantly visit different worlds.

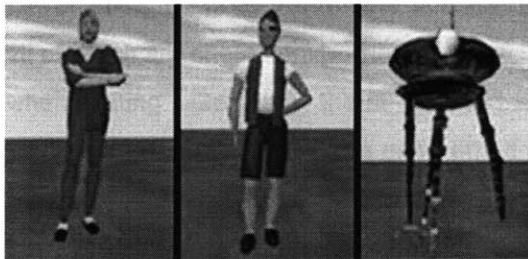
I have chosen three Active Worlds that are most relevant to our discussion of current

virtual words and their relationship to cyberpunk virtuality and physical reality. First, I look at AlphaWorld, the oldest and most popular of the Active Worlds. Then I briefly discuss Metatropolis, a world that explores the digital reality of Stephenson's fictional Metaverse. And finally, I reference Wein 2, a digital simulation of the city of Vienna.<sup>10</sup>

AlphaWorld, is the oldest and largest of the Active Worlds at an equivalent size of 655 km<sup>2</sup>. As a building and social world, it is the self-proclaimed home of hundreds of thousands of virtual homesteading avatars that have claimed their virtual real estate by covering thousands of acres of virtual cyberspace land with over 30 million objects. These objects include a variety of homes (from ranch-style and redbrick colonials, to stone fortresses, glass houses, and even caverns), intricate landscaping (including floating trees and innumerable fountains), streets (that have no cars and often end abruptly), billboards (that advertise other locations in AlphaWorld), and so on. Figure 4.7 shows "ground zero", the only entrance to AlphaWorld, which has no distinguishing features beyond a litany of billboards and a distant mountain range. Individuals are allowed full freedom of expression in this virtual world and can build anything on any unbuilt plot of land. "In AlphaWorld there's a place for everyone and room for infinite imagination" (activeworlds.com). This freedom of expression for the users and their capacity to be in total control of the environment is the settlement's greatest strength.

However, the cumulative effect of this *laissez faire* strategy of city building is the settlement's greatest weakness. Individual building decisions without any coordination tend to result in

4.6



4.7

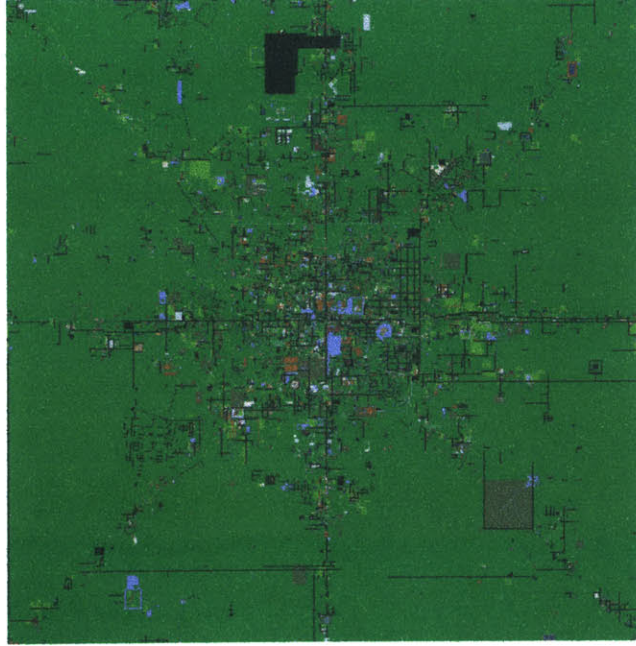


low-density settlements that are arranged in no particularly discernible form.<sup>11</sup> Figures 4.8 and 4.9, which are mapped aerial views of AlphaWorld in 1996 and 1999, show the growth pattern of this virtual sprawl and point to the increasing popularity of this virtual world. In fact, these maps grew out of the need for users to orient themselves within the digital settlement. Users cannot see more than 120 meters in any direction, whether walking or flying, and because of the world's lack of defining context, there is no perceptible order to the settlement and therefore not a very interesting landscape for the "avatar pedestrian" (Ryan: 1999). Beamish attributes the blandness of digital environments to their creators. Since they are typically not people who are concerned with space and spatial relationships, the users appropriate the urban image superficially and utilize it more as a backdrop or a tantalizing symbol to suggest the excitement of the city rather than trying to explore and simulate the complexity of real urban environments (1998). In the end, Beamish asserts, "we appear to only have succeeded in duplicating some of the worst aspects of the physical world — dark, empty, bland cities and landscapes — the very ones that we wish to escape from in the first place." This is glaringly clear in *Metatropolis*.

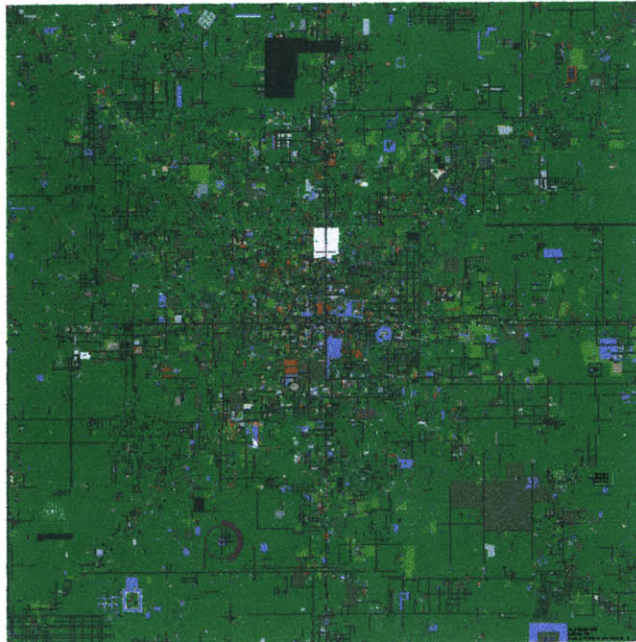
Stephenson's *Metaverse* in *Snow Crash*, whose urban imagery we have already discussed, inspired *Active World's Metatropolis*. While AlphaWorld is more suburban in its imagery — objects are set upon interminable swathes of green grass and against a distant mountain range — *Metatropolis* is entirely urban. Like the *Metaverse*, *Metatropolis* is a virtual landscape of skyscrapers and strip malls set in an eternal night-sky. But because *Metatropolis* depends on its participants to build the environment, the skyscrapers are not nearly as high and the landscape is not nearly as dense as in Stephenson's descriptions of the *Metaverse*. In fact, even though it is stated that the residents of *Metatropolis* include avatars of artists, pizza delivery teams, and mafia henchmen ([activeworlds.com/tour/meta.html](http://activeworlds.com/tour/meta.html)), all of which are characters present in *Snow Crash*, it is typical to encounter hardly anybody when visiting. Generally, the streets and skyscrapers of *Metatropolis* are largely empty and therefore, they produce an eerie effect under the darkness of the sky. *Metatropolis* is evocative of the physical cyberpunk city and of the actual American cities that exemplify the existence of cyberpunk elements in contemporary cities. For example, Figures 4.10 and 4.11 show the similarity between the main core of *Metatropolis* ("ground zero", where

## 4.0 CYBERPUNK VIRTUAL SPACE

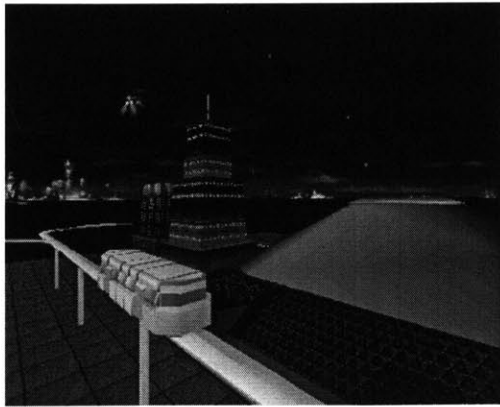
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4.8



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4.10

4.11

avatars enter Metatropolis) and downtown Detroit. The virtual monorail bears a striking resemblance to Detroit's People Mover – which is well known to run empty even during peak morning and afternoon rush hours – and the surrounding buildings that frame each image also resonate with inactivity. In this sense, the digital settlements are undoubtedly based upon existing physical cities, be they suburban or urban. As Beamish stated, we have created cities in cyberspace in the image of those that we are trying to evade in real life.

The “simulated city” type of digital world actually goes as far as to recreate already existing cities. This type of digital world is particularly interesting since it is entirely conceivable that we will be able to associate the implications of the virtually simulated city with its real-world counterpart. Beamish mentions four of these simulated cities, Planet9, Deuxième Monde (Paris), Virtual Whitehall (London), and Virtual Los Angeles.<sup>12</sup> Like these, Wien2 is a digital world created to show the different aspects of the City of Vienna. It depicts a variety of places in Vienna and by simply clicking its image, you are warped, or teleported, directly to the virtual rendition of that place. Like Deuxième Monde, the places in virtual Vienna correspond to places in the real physical city. And like AlphaWorld and Metatropolis, Wien2 is devoid of people and vehicles, though trees and historic buildings abound. By “boarding” the Viennese subway system, you can learn about Vienna and Austria through a subway-like map of links. You can also walk around the Michaeler Platz (Fig. 4.12) and go shopping in the Kohlmarkt (Fig. 4.13). In the Kohlmarkt, shopkeepers greet you at the door and your avatar can actually enter the store (Fig. 4.14).



Simulated cities in cyberspace present exciting possibilities for real cities. Exposure on the Internet can help potential visitors become familiar with the city of interest by accessing information about places and virtually experiencing them – though admittedly, at a very superficial level. However, the power of the Internet to facilitate the imaging of cities should not be underestimated. Another potential effect of the virtual presence of physical cities is that a place's prominence in cyberspace can enhance its prominence in the physical world. For example, I have never been to Vienna, but after having virtually visited the Kohlmarkt I will probably go search out the store that my avatar entered when, of if, I physically visit Vienna. In this way, prominence in the virtual world can enhance land values in the physical world. A popular place on the Internet is likely to become a popular place in the physical city. The location and accessibility in the virtual world can compensate or complement the location and accessibility of a place in the real world. In this manner, virtual space has the potential for affecting and changing the market for Real Estate in cities.

While contemporary virtuality in terms of digital settlements presents some enticing possibilities for both cyberspace and the physical world, its present state is unsatisfactory – at least to the eyes of urban designers. Sterile and uninteresting, digital worlds have much to learn from urban design. Acknowledging that our social relationships are intertwined with



4.12



4.13



4.14



spatial ones, at the “Media in Transition” conference held at MIT in the Fall of 1998, Anne Beamish offered some practical advice from urban design to improving the virtual landscapes of digital worlds. I list them below as an epilogue of sorts for this section on contemporary virtuality. Beamish proposes the following to designers of digital worlds:

- **use darkness sparingly** – humans like light, while darkness is likely to feel eerie and ominous.
- **provide variety** – a variety of places is necessary to respond to the different needs of different individuals at different times.
- **add visual interest** – this is the key feature of an attractive environment (though detail requires a large amount of storage or bandwidth).
- **learn from the past and the present** – learn from the triumphs and failures of the city. Try to replicate the good things and avoid the bad things.
- **provide social artifacts and activities** – include things to do and people to see.
- **read Kevin Lynch** – he talks about how people think about the city and how they orient themselves within it.
- **offer directions** – it is important for users to know where they have come from, where they are, and where they may like to go.
- **provide people** – people are the most important element in any city and especially in digital worlds since people go there primarily for social contact.

In my conclusion, conversely, we will see what lessons urban design can derive from the characteristics of cyberspace (Gibson’s, Stephenson’s and the contemporary virtual worlds alike).

<sup>1</sup> Also see Mitchell (1995,1999) and Graham and Marvin (1997) for comprehensive assessments on information technologies and the built environment.

<sup>2</sup> “To dissimulate is to feign not to have what one has. To simulate is to feign to have what one hasn’t. One implies a presence, the other an absence.” Simulation of the real turns the real into the hyperreal: “the product of an irradiating synthesis of combinatory models in a hyperspace without atmosphere.” (1988, 167)

<sup>3</sup> As evidenced by concentrations of media conglomerates in places like Times Square in Manhattan (Disney, Time-Warner, etc.) and Atlanta (CNN).

<sup>4</sup> For more details on precursors to the World Wide Web, see William J. Mitchell’s *City of Bits* (Cambridge, MA: MIT Press, 1995).

<sup>5</sup> The “I love you” bug, believed to have been released in the Philippines, swept the world within the span of two days and managed to corrupt thousands of individual, corporate, and government computer systems in May 2000.

<sup>6</sup> Gibson also incorporates “sensory link” into *Idoru* (1996). The protagonist accesses a virtual Venice where she has the power to configure the activities and people within the spaces.

<sup>7</sup> The financial district of the Metaverse has narrow streets, for example. (Stephenson, 454)

<sup>8</sup> Here, the emphasis is mine.

<sup>9</sup> According to Feathstone and Burrows, the term cyborg, refers to a “cybernetic organism” which is “...in effect a human-machine hybrid in which the machine parts become replacements, which are integrated or act as supplements to the organisms to enhance the body’s power potential.” (1995, 2). Also, see “Cyborg 1.0” in the February 2000 issue of *Wired* where a professor of cybernetics is about to undergo his second silicon chip implant, which will wiretap neural fibers in his upper arm, in order to “become one with his computer.”

<sup>10</sup> For more descriptions of virtual worlds, see Anne Beamish “The City in Cyberspace”.

<sup>11</sup> For a more comprehensive discussion on the urban form and structure of AlphaWorld, see Ryan, 1999, “AlphaWorld: The Taxonomy of a Digital City”.

<sup>12</sup> “Their purposes vary: users of Deuxième Monde mainly talk with other visitors, but they can also participate in special daily events, create 3D web pages, and shop online. Deuxième Monde is particularly interesting because the virtual version of Paris maps directly onto the physical version. Commercial space is available to rent for \$30,000 to \$80,000 per year, with the most desirable spaces online located in the same places as prime real-estate in ‘real-life’ Paris. Planet9 creates virtual worlds and cities for ‘marketing, advertising, product visualization, training, architectural simulation, data visualization and entertainment.’ Virtual Whitehall aims to provide users ‘with the ability to gain the ‘urban experience’ of London.’ And Virtual Los Angeles is a simulation of Los Angeles intended for educational and planning purposes...” (Beamish, 1998).

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN

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### 5.1 PHYSICAL + VIRTUAL

As extrapolative science fiction, Cyberpunk is really about the present and serves as a signal to urban design in identifying contemporary urban development trends and the possible future consequences of those trends. The cyberpunks' projecting of the present into the future, therefore, assumes a straight-line path of development of the contemporary built form. That is to say, cyberpunk visions of the future city are simply the future consequences of today's urban development trends. Generally speaking, the narrative landscapes of both the physical worlds and the virtual worlds in cyberpunk show how as a culture moves forward in a certain direction it influences (and morphs) the existing condition. This thesis has shown, in its first two chapters, how the physical contemporary (more or less, modern) city is transformed by an emerging (more or less, postmodern) urban condition and, in its last chapter, how virtual space is essentially a product of physical urban space.

For example, in Chapter 2, *An emerging urban condition*, we saw how the mass produced city brings about a placeless urban landscape; the social condition of inequality produces a dual city of extreme wealth and extreme poverty (and consequently informality and abandonment); environmental degradation affects the form and function of the city; and all powerful global corporations effect their control over the city, most notably through security and surveillance. In Chapter 3, *Physical zones of the cyberpunk city*, we saw how the emerging urban condition manifests itself over the urban landscape by producing a fragmented and dispersed conurbation of mega-structures, outlaw zones, rubble rings, burbclaves, preservation zones, and space colonies. And since Cyberpunk explicitly looks at the junction of information technologies and social processes, in Chapter 4, *Cyberpunk virtual space*, we saw the relationships between virtual spaces and the physical built form. Consequently, this chapter also illustrated how virtual space is derived from, and necessarily influenced by, physical urban space, as this is the only way for us to conceptually understand the aspatial digital realm. When put together, the three chapters present a window into the lessons that are derived from a comparison between the present and the future and the physical and the virtual. As Bukatman states, "Urban space and cyberspace become re-

reciprocal metaphors – each enables an understanding and negotiation of the other” (1993: 145).

According to the cyberpunks, the future development of the contemporary city is shaped by an emerging postmodern condition thus retrofitting the present into a place not unlike Dear and Flusty's composite urban scenario cited at the end of Chapter 2. Moreover, cyberpunk novels illustrate how the essence of the physical world is adapted to and improved upon in the virtual realm. There is a parallel effect between how the postmodern condition transforms the modern city into the postmodern city and, how elements from the physical world are appropriated in shaping the virtual world. The descriptions of urbanity in cyberpunk from the first two chapters show how the contemporary modern city is affected by the postmodern condition and, in turn, how the contemporary city adapts to the emergence of these conditions. In the development of elements such as burbclaves, spontaneous settlements, surveillance spaces, and preservation zones we see how the postmodern condition superimposes itself over, and changes, the modern city of suburbs, tower blocks, and asphalt plazas.

Similarly, as discussed in Chapter 4, cyberpunk virtual space has been and will continue to be shaped by the influence of physical urban space. Due to the projected decline of the quality of urban space, however, virtual space, with its capacity to adapt to individuals' interests and needs and provide sensual stimulation that rivals that of the real world, becomes a welcome retreat from the chaotic and oppressive physical environments of the future. Inevitably, the cultural prominence of virtual worlds will increase and eventually grow more important than that of the physical world. In other words, the attractive malleability of the digital world combines with the undesirability of the physical world to produce a culture shaped largely by the virtual.

As the source of culture, or our frame of reference, is increasingly derived from digital space, we can assume that the activities of the virtual world will eventually spill out to influence the physical world. It is possible that through agents like urban designers, the influence exerted by the virtual over the physical will be a positive one. Presently, it may be

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN



Times square as seen through a webcam on Broadway and 45th street in May 2000. 5.1

hard to imagine the bare and disorienting existing virtual worlds, like the Active Worlds I discussed at the end of Chapter 4, influencing the shaping of our urban landscapes. Yet, as the cyberpunks predict, the following is an entirely conceivable future: a degraded urban landscape exists concurrently with technologies like simulated stimulation and the Metaverse, where a headset or biochip implant can offer experiences much beyond what is possible in reality. This scenario would further de-emphasize the importance of the urban realm.

But, the redevelopment of Times Square offers a more likely scenario for the future reality of urban spaces. The so-called “New Times Square” marks a perceptible shift in how our culture is increasingly being influenced by the digital realm (Fig. 5.1). Specifically, the Nasdaq MarketSite Tower is tangible evidence of how the virtual realm is in time reflected in physical space. Up until December 1999, when Nasdaq appeared at its prominent address in Times Square in the form of the world’s largest video screen, known as the Tower, the only places where one could physically perceive of that trading market’s activities were in a newspaper, on television and on the Internet. Since Nasdaq does not have a trading floor, the MarketSite serves as the physical expression for its virtual activity – there is the eight-storey tall LED (light emitting diode) screen, a broadcasting facility and a public interactive exhibit. In this way, as the CEO of Nasdaq stated, “Visitors from around the world will be able to experience – in a truly fascinating way – the technology and media typically viewed on their computer and television screens. The Nasdaq MarketSite Tower will stand tall for Nasdaq’s ideals to be digital, global, and investor- focused.” The physical expression of the digital serves to physically engage and image virtual activity as well as to tangibly symbolize otherwise imperceptible aspirations (it is hard to construct grandeur in

cyberspace that can compare with an eight-storey tall screen).

As we have seen, the cyberpunk narrative essentially illustrates the postmodern urban condition as a social and physical dispersal and fragmentation of urban systems. Conversely, cyberpunk virtual space is characterized by the opposite effect: cyberspace concentrates and connects information and social spaces. If indeed the processes of dispersion and fragmentation are contemporary urban development trends, which in certain parts of the United States – such as in Los Angeles, Atlanta, Phoenix, Las Vegas – is demonstratively true, then, through an Urban Design perspective we can begin to explore the desirable characteristics of the virtual that can be expressed in the physical world. For example, virtual space is adaptable, concentrated, and subjective. We could apply these qualities of cyberspace to physical built form as a means of connecting the urban fabric across the increasingly defined borders of, for example,

- Poverty and wealth,
- Informality and formality, and
- Decay and preservation.

In other words, *what* qualities can we draw from virtual space to improve built space – to kink the presumed (at least by Cyberpunk) straight development trajectory of contemporary physical urban space? And *how* can we apply these qualities to mitigate the cyberpunk trends in physical space?

There are three characteristics specific to cyberspace that grant the virtual realm an advantage over the physical realm, yet can be interpolated onto urban space. First, cyberspace has a unique spatial order where physical distance is immaterial and accessibility depends largely on “topological linkage” (Shiode, 1997). As in Gibson’s *Matrix*, cyberspace is everywhere and nowhere at once, its information and social spaces are accessible (albeit to those who have the technological infrastructure) regardless of their physical geographic position. Unlike physical urban space, propinquity is not valid in cyberspace. We shall call this “virtue of the virtual”, **connectivity**. Second, cyberspace has a unique flexible spatial character where spaces can be quickly modified, replaced, removed, or united with relative

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN

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ease by its users. The elements that cyberspace contains are entirely controllable by its users and builders, as in Stephenson's Metaverse or in the Web's Alpha World; they can expand, unite and distort spaces and places – it is simply a matter of knowing the adequate computer language or code. Elements in actual cities, on the other hand, take years, even decades, to be modified, replaced, removed or incorporated into urban space. This second “virtue of the virtual” can be termed, **flexibility**. Third, cyberspace provides users with seemingly countless environments where individuals have opportunities to find ideal places that speak to them and that suit their interests and needs. If not, individuals can also customize their own spaces according to their own tastes (as we saw with Hiro and Ng in the Metaverse). Current cyberspace is predominantly considered a, “...communal space in which [we] can enjoy a social life of [our] own style; i.e. expressing ourselves, listening to others' opinion, communicating with each other, and receiving various visual and audio information” (Shiode, 1997). This ability to customize and disclose personal meaning from space is a third “virtue of the virtual” for which we can appropriate Kevin Lynch's (1960) term, **imageability**.

These three virtues of the virtual – connectivity, flexibility, and imageability – give digital space a competitive advantage over an emerging fragmented, rigid, and placeless physical urban space. In their purest application, connectivity, flexibility and imageability – in other words, the ability to shun distance and easily control and customize space – are unique to virtual space. However, as general concepts, connectivity, flexibility, and imageability are entirely applicable to physical urban space. These elements of virtual space can facilitate urban design in improving and adapting the contemporary city to the information age.

### 5.2 THREE DIRECTIONS FOR URBAN DESIGN

And so, the qualities of virtual space provide us with three directions for Urban Design:

1. **connectivity**: *remove the boundaries between the different functions/zones of the city.*



This concept deals with facilitating people's daily interactions in the city. Connectivity can be expressed in urban space by implementing a finer grain of mixed use, at the architectural and urban scale. Approaches that are beginning to physically exhibit the concept of connectivity can be seen at the architectural scale in live/work environments. Here there is a fluid spatial transition between working space and living space. Bill Mitchell talks of teleconferencing from your home study, for example. At the urban scale, connectivity is burgeoning through the reintroduction of "third spaces" to our urban design vocabulary. Third spaces are informal places of social interaction that can accommodate playing, learning, working, etc. – Internet cafés are a good contemporary example of a small-scale third space. Third spaces present a great opportunity for urban design to interface with the digital realm, particularly once wireless computing becomes widely adopted. Incorporating the adequate infrastructure into the urban landscape for portable and wearable computing to be able to network with places and spaces will be crucial.

- 2. flexibility:** *design environments that can adapt and respond to the changing needs of its users over time.*

This concept deals with making places and structures responsive to the rapidly shifting needs of an information-based economy that thrives on instantaneous global exchanges. Flexibility can be expressed in urban space through adaptable public spaces and building shells that can accommodate a variety of interior programs. The demand for flexible spaces is already being expressed through the large amount of loft-conversions, even in American central cities, and in the increasing number of large tent spaces like London's Millennium Dome. The rapid pace of tenant upfitting in the design of interior spaces is encouraging the design of flexible building shells and modular architecture, as we will see in an upcoming example. The "dot com" economy, with its fast pace – overnight riches and losses – is particularly liable to demand flexibility in their habitats since through their experiences in cyberspace, they will have become accustomed to malleable and instantly responsive spaces.

**3. imageability:** *design places that reflect and respond to the culture, characteristics and needs of locales and its people.*

This concept deals with how we understand, experience and customize places so that they communicate meaning on both a personal and a community level. Imageability can be defined as, our reading of or our communicating through and with, physical space. Imageability can be about giving form to information just as much as it can be about informing the built form. The concept of imageability responds to the increasing demands that "...public spaces be not only convivial, but also *communicative* – of history and other narratives, requiring the incorporation of media into the environment" (Frenchman, 1998). Communicative places can be created through elements such as cultural and historical narratives in the landscape, spatially aware wearable computing (mentioned in Chapter 2 in the discussion on the Remembrance Agent), and a city's presence in cyberspace or even a person's exposure to cyberspace when present in the city. This last example, the ability for people to interact with cyberspace while acting in physical space, is beginning to emerge in our urban landscapes. Ever more sophisticated Palm Pilots constitute the mobile, "cybergoisie" example of this. While in the streets of Amsterdam, for example, the largest Dutch telecom company installed 25 "Internet Poles" in 1997 and just three years later, all major Dutch cities have similar points of access to the Internet. Internet Poles look like phone booths but instead contain a full-color screen, a keyboard, and a trackpad in place of the old phone receiver to provide Internet access for information and entertainment. This is also an example, like in the New Times Square, of how the urban environment is being reshaped to physically include elements of cyberspace.

Under these three general concepts for urban design, a solution to diverting the straight path of contemporary urban development, as extrapolated by Gibson and Stephenson, lies somewhere along the lines of the electronically mediated urbanity of Mitchell's *E-topia* (1999). Electronically mediated urban places are "...sites where two otherwise distinct domains – meatspace and cyberspace, as *Neuromancer* so vividly and provocatively troped it,... – are intersected, in some effective combination, to support some particular human

activity. They are places...where physical actions invoke computational processes, and where computational processes manifest themselves physically (Mitchell, 1999: 31-2). Mitchell's definition of electronically mediated urban places necessarily assumes that, "Eventually, we will cease to conceive of computers as separate devices, and begin to regard machine intelligence as a property that might be associated with just about anything" (1999: 46). This, "just about anything", includes elements such as smart wallpaper that can act as a television screen, clock, art, or a camera monitor; augmented reality where projections of three-dimensional digital information can intersect with physical space to create a new type of hybrid architecture; or large-scale video projections for life-sized digital images that facilitate the interface between the physical and the virtual (Mitchell, 1999).

We can think of how people experience the electronically mediated environment produced by connectivity, flexibility, and imageability in one of two ways. The first, which we shall refer to as the *place-making model*, poses the opportunity to challenge your framework of thinking about places and spaces by being exposed to different perspectives on those places. Frenchman states that, "Within the material realm, place is created when narratives are joined with form." Whereas space "...is physical form in the absence of narrative." Therefore, the place-making model describes narrative experiences in an electronically mediated narrative environment.

Frenchman's work on the largely invisible Jamestown Island settlement in Virginia exemplifies the utility of the place-making model of electronically mediated environments. In order to tell the story about a place that does not have much material evidence, the Jamestown story is told largely through the archaeological narrative of discovering Jamestown. Creating an interpretive landscape for Jamestown – that is, designing environments that support learning about the process of discovering Jamestown according to each visitor's point of view – is achieved through interpretive stations that house media, exhibits and a virtual collection (that is accessible via Internet or at the Jamestown site itself). "These stations provide a means to connect the landscape to specific themes and stories while protecting exposed archeological remains and ongoing excavations" (Frenchman: 19). Overall, the Jamestown example illustrates the communicative, place-making

possibilities of combining information technology with the landscape and how IT can help us communicate with places. However, the following questions do arise: Who decides what messages are to be communicated by landscapes? What kinds of spaces need “place-making” (through the interpretation of a narrative) and when do landscapes communicate well enough on its own without electronic mediation? Will people have a choice in whether or not the places they inhabit are to be mediated?

The second, which we can refer to as the *friction-of-space model*, sees the role of digital technology as simply increasing our sensitivity to the flow of urban life. In this case, for example, your mobile information technology, which knows all of your personal preferences and tastes, (much like the Rememberance Agent in Chapter 2), would let you know that the coffee store you are approaching has those cappuccinos that you love so much on sale. This model provides real-time, practical information. Urban design does not play much of a role beyond, perhaps, integrating this technology into the urban landscape so as to make it invisible. Because, according to *Wired* magazine (6.2000), “Technology, which was briefly cool, is no longer a fashion statement; now it’s merely a reminder of the network that distributes identical experiences around the globe” (316). The trend in facilitating the flows of urban life through technology, apparently, is going towards invisibly technologized spaces (not places). Conscious of this, two of OMA’s (Koolhaas’ Office for Metropolitan Architecture) current projects - the Seattle Public Library and Prada stores in Manhattan – are “...designed to create an architectural experience in the context of a virtual world” (*Wired*: 316) as opposed to, presumably, a wired experience in a physical world.

As Mitchell asserts, recent developments in digital technology suggests that virtual space will not remain encased behind the desk computer monitor but will be increasingly part of the physical world through future incarnations of contemporary wireless agents such as cell phones, palmtops and wearables and ubiquitous computing in smart homes, offices and even public spaces (Mitchell, 1999). In that sense, we will be “invisibly technologized” and therefore, we need to stop conceiving of cyberspace as competition to physical space and its activities and functions, and begin considering the virtual realm as a complementary element to urban life. But this can only happen if physical urban space does not adopt the

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN

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fragmented form of inequality, exclusion, surveillance, placelessness, and dematerialization so vividly described by cyberpunk literature. If the city were to take the path that cyberpunk extrapolates from the present, then people would indeed have cause to retreat to Utopian digital worlds such as the Metaverse, or in reality, to more sophisticated versions of Alpha World. But, in the context of our discussion here, the “virtues of the virtual” could work against these trends – connectivity, flexibility, imageability. Just think, how satisfactory would an electronically mediated experience in a Burbclave, an Outlaw zone, or a Rubble Ring really be?

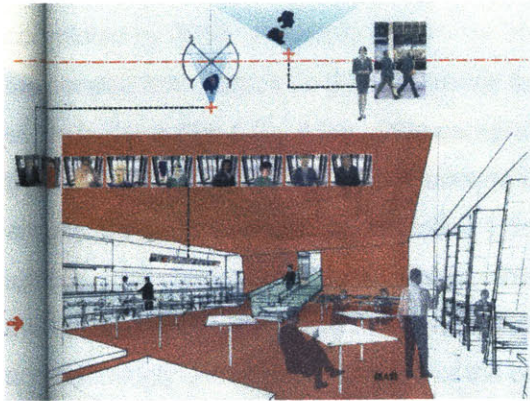
Fortunately, though admittedly based upon contemporary urban conditions, the cyberpunk future city is unlikely to materialize in its full melodramatic glory. After a more than thirty-year decline, American cities are beginning to experience a resurgence of activity – and therefore redirect the presumed straight trajectory of urban development trends. Rising rents in center city neighborhoods, infill development and redevelopment projects, cultural heritage preservation efforts, brownfields remediation, low-income housing initiatives, anti-sprawl acts, transit oriented developments. These are just a few of the urban planning and design interventions that are characterizing a resurgence of constructive activity in urban areas. By incorporating the three elements that urban design can adapt from virtual space – cyberspace being one the most revolutionary developments in urban life since automobiles and suburbs – we face exciting new prospects for making cities ever more vibrant, exciting and meaningful places to be.

The following examples show how two scales of architecture are beginning to consider the three proposed directions for urban design – connectivity, flexibility, and imageability – at the interior design and the building scales in anticipated projects for the 21<sup>st</sup> century. As such, these projects help us to begin considering the real life implications of such directions for urban design.

### 5.3 FLEXIBLE + REAL-TIME ARCHITECTURES

Elizabeth Diller and Ricardo Scofidio have been widely acclaimed (in 1999 they were named

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN



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MacArthur follows) as leading the direction of future architecture. In their projects, they explore how new technologies relate to space and in doing so, they attempt to expose the values, norms and social conditions of the moment by making these visible, readable and tangible in their architecture. Through their use of unconventional materials – such as video, monitors, liquid crystal, electro-luminescent panels, hologram-like elements, and even water vapor – Diller + Scofidio reject the staid principles of mainstream brick-and-mortar architecture and instead embrace a morphing, flexible, real-time approach to design and look to capitalize on the power of imageability presented by new technologies (Scanlon, 2000).

Their first completed project (in January 2000) is a renovation of The Brasserie at the Seagram Building in Manhattan (Fig. 5.2). The most distinguishing aspect of this project is the high-technology elements that are incorporated into the design. A 40-inch plasma panel displays live footage from an exterior camera, while 15 LCD monitors above the bar show motion-blurred freeze-frames of the last 15 people to pass through the restaurant's revolving doors. Beyond the superficial “novelty factor” of surveillance monitors in a restaurant, the architects – who are concerned with making tangible the social conditions produced by the interaction of technology and space – are explicitly commenting on the pervasiveness of surveillance cameras, and their attendant monitors, in the urban landscape.

Another project that expresses a similar concept is the appropriately named *Facsimile*, which is proposed for the Moscone Center West in San Francisco and is scheduled to be

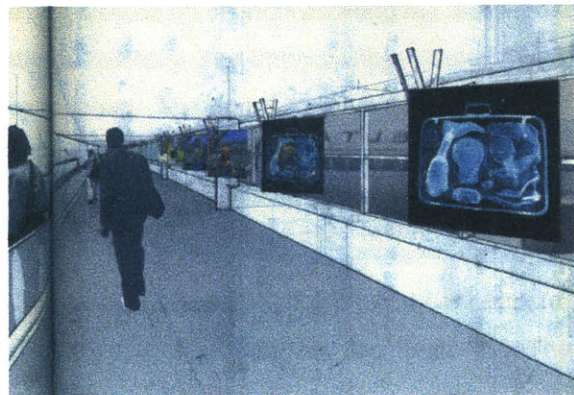


## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN

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completed by 2003. *Facsimile* is a 16- by 30-foot high-resolution LED video screen that is suspended from a track on the conference building's roof and slides along the exterior wall of the building (Fig 5.3). A live video camera is fixed behind the screen and points into the building to capture footage of the scenes inside. The interior scenes of the building's activity are combined with pre-recorded video images of fictional vignettes and imagined spaces. This creates a transparent interaction between those inside the building and outside the building, those inhabiting the private and those in the public sphere. The uncensored and seemingly uncontrollable image of the building's interior action transforms the passive viewer into a direct eyewitness. The screen serves to project, and therefore simulate, an interior reality outwards. Diller has previously pointed out (ArchiNet, 1998), like Davis (1990), Koolhaas (1995) and the cyberpunks also do, that so much in society can be observed using cameras that it has become an unstated social contract in both the public and the private sphere (the omnipresence of television, surveillance, and web cameras is uncontested). Like the monitors and screen incorporated into The Brasserie in Manhattan, *Facsimile* exposes and therefore makes people conscious of the ubiquitous surveillance systems. But neither project resolves the contradiction between what the project does and what it says. While in effect transcending the physical boundaries between interior and exterior urban space through digital space, and exposing the pervasive social condition of surveillance, the projects nevertheless perform the act they condemn.

*Travelogues*, another D+S project which will should be completed by the Spring of 2000 at JFK International Airport in Queens, New York, is less ambivalent about its role in architectural space. This project communicates a narrative about four travelers through the use of



5.4

lenticulars – a lens in sheet form that can produce an image with depth and motion that relies on the moving viewer to animate the images. Thirty-eight 4-by 4-foot lenticular panels, each holding a 3-second digitally animated series, are placed along a narrow passageway between terminals to create a movie theater of sorts that requires a mutual engagement between the viewer and the narrative to function (Fig. 5.4). This low-technology, yet immersive and interactive, approach acts like an evolved version of the typical passive public art pieces, such as murals and sculptures, that are conventionally used to convey meaning in cultural and historical narratives.

These preceding examples point out the fine line between commentator, perpetrator, and negotiator of which urban design should be conscious if we are to apply the concepts of connectivity and imageability through new technologies that are conventionally used for surveillance and simulacra. On the one hand, incorporating the concepts of connectivity and imageability into the urban landscape can act as a positive force in mitigating the ill consequences of urban fragmentation and dispersal. On the other hand, however, translating the concepts into actual urban elements – particularly ones that involve technological means to do so – presents a risk of further propagating the destructive forces we should work to alleviate.

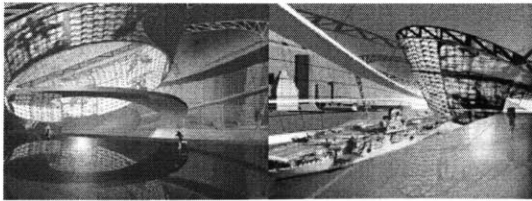
### 5.4 “FUTURES TO COME”

*Architectural Record's* final issue of 1999 features “The Millennium Futures to Come” where nine American architecture firms were asked to envision the forms that architecture will take on in the 21<sup>st</sup> century. In light of our current discussion on incorporating the three most notable elements of digital space – connectivity, flexibility, and imageability – into physical urban space, two projects in particular seem relevant. The first is Asymptote's Museum of Technology and Culture (Fig. 5.5) and the second is Kolatan/Mac Donald Studio's Resi-rise skyscraper (Figs. 5.6).

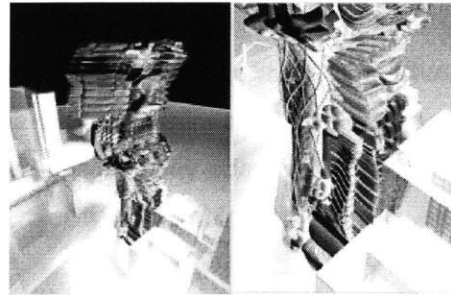
Asymptote's Museum of Technology and Culture expresses two of our three concepts for the future of urban design, albeit at the building scale – connectivity and flexibility. The



## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN



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museum is stated to “...respond to...technology as art, and to the dematerialization and simulation of all aspects of culture through information technology.” Asymptote proposes a malleable interior space that can easily transform itself. Its exhibition floor slides back to create an aquatic arena (the museum is set on Piers 9 and 11 of Manhattan’s East River) and its meandering ramp can be reconfigured. The museum interacts with its urban context through an exterior surface clad in LCD panels that can broadcast digital signals. “The building thus becomes a ‘real’ physical entity, as well as an ephemeral mediator for information. This duality, like the urban condition itself, perpetuates a constant state of flux.” (93)

The Resi-rise Skyscraper proposed by Kolatan/Mac Donald Studio for Columbus Circle in Manhattan is interesting as it embodies nearly the same concept of flexible built form as envisioned by cyberpunk. Particularly, the Resi-rise skyscraper seems to combine Gibson’s previously mentioned coffin racks (in Chapter 2) and the “nanotech buildings” of *Idoru* (1996) that grow autonomously as they construct themselves into the earthquake-decimated urban fabric of Tokyo<sup>1</sup>. As “vertical urbanism”, this project also addresses the concept of connectivity. The Resi-rise Skyscraper is essentially a frame and infrastructure that grows as individual rental tenants supply and inhabit their own “pods”. The pod morphology, size, programming, function, materials, and furnishing can be customized and therefore, individual residents can influence the units’ spatial distribution. “The Resi-rise merges multiple identities within a collective, unified system.” Groups can come and go with their own pods and as tenants leave, old pods are removed and short-term scenarios become feasible. “For the tenant, the pod is less like real estate and more like a leased car... Construction of the Resi-rise is thus open ended” (88-91).

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN

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These previous five examples of how built forms at the interior and building architecture scales are beginning to incorporate the “virtues of the virtual” – connectivity, flexibility and imageability - into the physical world. What do these projects say about urban design? And, what can urban design learn from how these projects are combining the virtual with the physical?

### 5.5 A CALL TO ENVISION

In the end, we need to think about what the profession's responsibility is to the urban realm. Is it, as Diller + Scofidio do, to elucidate the contradictions of the present urban condition in a clever way? Or, is it our job to adopt information technologies to simply facilitate the flows of urban life, as in the cappuccino-on-sale example? Or, as in the museum and the Jamestown examples, is it to propose more positive ways of using technologies for more information rich experiences? Our responsibility as urban designers probably involves a combination of the above examples.

However, what this thesis has illustrated, more extensively than anything else, is that urban design needs to re-adopt the profession's distinctive role of postulating positive, if not ideal, urban futures. The absence of a powerful vision of the future coming from the urban design and planning professions has left others to interpret the interaction between the revolutionary advances in information technologies and the culture of cities. It is particularly important for the design professions to participate in the process of envisioning of future cities because otherwise, we are left with the dystopian urban futures of Cyberpunk. Certainly, as we have seen, cyberpunk does not present a very attractive prospect for the future of cities – though its essential purpose of presenting cautionary tales in order to shed light on current, possibly destructive, urban development processes is important.

Fortunately, dystopian visions of the future city are inconsequential because they do not allow opportunity for the agent (in our case, the planner and the urban designer) to effect change. At best, visions of the future city, particularly dystopian ones like those of cyberpunk,

## 5.0 CONCLUSION: DIRECTIONS FOR URBAN DESIGN

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can elucidate the possible, negative consequences of the present in the *absence* of an agent of change. Where an analysis of cyberpunk fiction has been valuable is in the cognitive space it provides urban designers, as agents of change, to begin considering the direction of our actions as we are rapidly faced with the complex social impacts of new technologies. As Bill Mitchell states, “Our job is to design the future we want, not to predict its predetermined path” (1999: 12).

It is my hope that the directions for urban design considered at the conclusion of this thesis begin to guide the urban designer in shaping a future that draws from the most positive aspects of our urban experience – be they derived from the physical or the virtual realm.

<sup>1</sup> Nanotech buildings are structures that grow organically on their own to produce “the world’s largest inhabited structures” (1996, 108) – a vertical urbanism of sorts. As they grow into an “organic streamline”, they “slide apart, deliquesce, and trickle away down into the mazes of an older city” (P 110).

## FICTION

- Burgess, Anthony (1965) *A Clockwork Orange*  
 Dick, Phillip K. (1982) (*Blade Runner*) *Do Androids Dream of Electric Sheep?* New York: Ballentine.  
 Orwell, George (1949) *1984*. New York: Harcourt, Brace.

## CYBERPUNK

- Gibson, William (1984) *Neuromancer*. New York: Ace Books.  
 Gibson, William (1986a.) *Count Zero*. New York: Arbor House.  
 Gibson, William (1986b.) *Burning Chrome*. New York: Arbor House.  
 Gibson, William (1988) *Mona Lisa Overdrive*. New York: Bantam.  
 Gibson, William (1992) *Virtual Light*. New York: Bantam.  
 Gibson, William (1996) *Idoru*. New York: Bantam.  
 Stephenson, Neal (1992) *Snow Crash*. New York: Bantam.  
 Sterling, Bruce (1986) ed., *Mirrorshades: the Cyberpunk Anthology*. New York: Arbor House.

## FILM

- "Metropolis" (Fritz Lang, 1927)  
 "Clockwork Orange" (Stanley Kubrick, 1971)  
 "Bladerunner" (Ridley Scott, 1982)  
 "Brazil" (Terry Gilliam, 1985)  
 "Johnny Mnemonic" (Robert Longo, 1995)  
 "The Fifth Element" (Luc Besson, 1997)  
 "The Matrix" (Andy and Larry Wachowski, 1999)

## BIBLIOGRAPHY

- Baudrillard, Jean. (1983) *Simulations*. New York: Semiotext(e).  
 \_\_\_\_\_ (1988) *Selected Writings*. Stanford, CA: Stanford University Press.  
 Beamish, Anne (1999) "The city in cyberspace," in *Imaging the City: Continuing Struggles and New Directions*, eds. L.Vale and S.B. Warner. New Brunswick, NJ: Center for Urban Policy Research, in press.  
 Beck, Gregory (1986) "The City in the Image of Science Fiction Cinema". SMArchS thesis.  
 Burrows, R. (1997) "Virtual culture, urban social polarization and social science fiction", in Loader, B. (ed). *The Governance of Cyberspace*. London: Routledge.  
 Bukatman, S. (1993) *Terminal Identity: The Virtual Subject in Postmodern Science Fiction*. London: Duke University Press.

- Campanella, Thomas (1999) "Anti-urbanist city images and new media culture," in *Imaging the City: Continuing Struggles and New Directions*, eds. L.Vale and S.B. Warner. New Brunswick, NJ: Center for Urban Policy Research, in press.
- Castells, Manuel. (1996) *The Rise of the Network Society*. London: Blackwell.  
————— (1997) *The Power of Identity*. London: Blackwell.
- Clark, Nigel. (1995) "Rear-View Mirrorshades: The Recursive Generation of the Cyberbody." In *Cyberspace/Cyberbodies/Cyberpunk*, eds. M.Featherstone and R.Burrows, 113-133. London, UK: Sage.
- Cook, Peter, ed. (1999) *Archigram*. Princeton, NJ: Princeton Architectural Press.
- Corn, Joseph J. (1996) *Yesterday's Tomorrows : Past Visions of the American Future*. Baltimore: Johns Hopkins University Press.
- Davis, Mike. (1990) *City of Quartz*. London, UK: Verso.  
————— (1998) *Ecology of Fear*. New York: Metropolitan Books, Henry Holt & Co.
- Dear, Michael and Flusty, Stephen. (1998) "Postmodern Urbanism", *Annals of the Association of American Geographers*, v.88, n.1, p.50-72.
- Featherstone, M., and R. Burrows. (1995) "Cultures of technological embodiment: An introduction". In *Cyberspace/Cyberbodies/Cyberpunk*, eds. M.Featherstone and R.Burrows, 1-19. London, UK: Sage
- Fitting, P. (1991) "The lessons of cyberpunk". In *Technoculture*, eds., C.Penley and A. Ross. Minneapolis, MN: University of Minnesota Press.
- Foucault, Michel. (1993) "Of other Spaces: Utopias and Heterotopias", in Joan Ockman, ed., *Architecture Culture, 1943-1968*. New York, NY: Rizzoli.
- Frenchman, Dennis (1998) "Narrative Places and the New Practice of Urban Design," in *Imaging the City: Continuing Struggles and New Directions*, eds. L.Vale and S.B.Warner. New Brunswick, NJ: Center for Urban Policy Research, in press.
- Graham, Stephen and Marvin, Simon. (1996) *Telecommunications and the City: Electronic Spaces, Urban Places*. New York: Routledge.
- Hall, Sir Peter. (1988) *Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century*. Cambridge, MA: Blackwell.  
————— (1998) *Cities in Civilization*. New York, NY: Pantheon.
- Harvey, D. (1989) *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Blackwell: Oxford.

- Jameson, Fredric. (1991) *Postmodernism, or the Cultural Logic of Late Capitalism*. Durham, NC: Duke University Press.
- Kellner, Douglas. (1995) *Media Culture: Cultural studies, identity and politics between the modern and the postmodern*. New York, NY: Routledge.
- Kitchin, Rob. (1998) *Cyberspace: the World in the Wires*. New York : John Wiley & Sons.
- and Kneale, James (1999) "Cities in the New Millennium: A View from Science Fiction", paper presented at University of Newcastle conference.
- Koolhaas, Rem (1995) *Small, Medium, Large, Extra-Large: OMA*. Rotterdam: New York, N.Y.: 010 Publishers; Monacelli Press.
- Lefebvre, Henri (1991) *The Production of Space*. Oxford, UK ; Cambridge, MA: Blackwell.
- Lynch, Kevin (1960) *The Image of the City*. Cambridge, MA: MIT Press.
- MacLean, Alex (1993) *Look at the Land: aerial reflections on America*. New York: Rizzoli.
- McCaffery, Larry, ed. (1991) *Storming the Reality Studio: a casebook of Cyberpunk and Postmodern fiction*. Durham, NC: Duke University Press.
- Mitchell, William J. (1999) *E-topia: Urban life, Jim – but not as we know it*. Cambridge, MA: The MIT Press.
- (1995) *City of Bits: Space, Place and the Infobahn*. Cambridge, MA: The MIT Press.
- Mollenkopf, John and Castells, Manuel (1991) *Dual City: Restructuring New York*. New York, NY : Russell Sage Foundation.
- Shiode, Narushige (1997) "An outlook for urban planning in cyberspace", Centre for Advanced Spatial Analysis, University College London. <http://www.casa.ucl.ac.uk/planning/articles2/urban.htm>
- Sassen, Saskia (1991) *The Global City: New York, London, Tokyo*. Princeton, NJ: Princeton University Press.
- Scanlon, Jessie, "Making it Morph," *Wired*, February 2000, vol.8, no.2.
- Soja, Edward, ed. (1996) *The City : Los Angeles and urban theory at the end of the twentieth century*. Berkeley, CA: University of California Press.
- Sorkin, Michael, ed. (1992) *Variations on a Theme Park: The New American City and the End of Public Space*. New York, NY: Noonday.

Stephens, Suzanne and Pearson, Clifford, "Futures to Come," *Architectural Record*, Dec. 1999.

Vergara, Camilo Jose. (1997) *The New American Ghetto*. New Brunswick, NJ: Rutgers University Press.

Warren, Warren, Nunn, and Warren. (1998) "The future of the future in planning: appropriating cyberpunk visions of the city", in *Journal of Planning Education and Research*. 1998 Fall, v.18, n.1, p.49-60.

Wolf, Gary, "Exploring the Unmaterial World," *Wired*, June 2000. vol. 8, no. 6.

### URLS

(ALL ACTIVE 2000)

Active Worlds: <http://www.activeworlds.com>

An Atlas of cyberspaces: <http://www.cybergeography.org/atlas/atlas.html>

ArchiNed News: [http://www.archined.nl/news/9802/diller\\_e.html](http://www.archined.nl/news/9802/diller_e.html)

The Fifth Element: <http://www.thefifthelement.com>

Frequently asked questions on alt.Cyberpunk: <http://www.alt.cyberpunk.faq>

Henry Jenkins' "Media in Transition": cyberpunk: [http://media-in-transition.mit.edu/science\\_fiction/jenkins/index.html](http://media-in-transition.mit.edu/science_fiction/jenkins/index.html)

Internet Movie Database: <http://www.imdb.com>

The Matrix: <http://www.whatisthematrix.com>

Neuromancer: <http://www.neuromancer.org>

NYU Telecommunications and Cities: <http://www.nyu.edu/urban>

Techmall (re: Nasdaq MarketSite): <http://www8.techmall.com/techdocs/TS991228-6.html>

Times Square Cam: <http://www.earthcam.com/usa/newyork/timessquare/cam1.html>

University College London, Centre for Advanced Spatial Analysis: <http://www.casa.ucl.ac.uk/planning/articles2/urban.htm>

## INDEX OF IMAGES

- 1.1 AD magazine, Architecture + Film I.  
 1.2 Davis, Mike (1998) *Ecology of Fear*.  
 1.3 Corn and Horrigan (1984) *Yesterday's Tomorrows*.  
 1.4 Bukatman (1993) *Terminal Identity*.  
 1.5 Architectural Record, "The Millennium Futures to Come," 12.1999.  
 2.1 MacLean, Alex (1993) *Look at the Land: aerial reflections on America*.  
 2.2 *ibid.*  
 2.3 Koolhaas, Rem (1995) *S,M,L,XL*.  
 2.4 New York Times Magazine, "The Invisible Poor."  
 2.5 Vergara, Camilo Jose (1997) *The New American Ghetto*.  
 2.6 nest magazine, "Futurama," spring 2000.  
 2.7 bladerunner website.  
 2.8 AD magazine, Architecture + Film II.  
 2.9 George magazine, May 2000.  
 2.10 MacLean, Alex (1993).  
 2.11 *ibid.*  
 2.12 AD magazine, Architecture + Film II.  
 2.13 *ibid.*  
 2.14 MacLean, Alex (1993).  
 3.1 *ibid.*  
 3.2 author's diagram.  
 3.3 cybergeographies website.  
 3.4 *ibid.*  
 3.5 Buckminster Fuller website.  
 3.6 MacLean, Alex (1993).  
 3.7 *ibid.*  
 3.8 *ibid.*  
 3.9 *ibid.*  
 3.10 Corn and Horrigan (1984).  
 3.11 *ibid.*  
 4.1 author's diagram.  
 4.2 Neuromancer website.  
 4.3 *ibid.*  
 4.4 *ibid.*  
 4.5 The Matrix website.  
 4.6 ActiveWorlds website.  
 4.7 Alpha World screen shot.  
 4.8 ActiveWorlds website  
 4.9 *ibid.*  
 4.10 Metatropolis screen shot.  
 4.11 Vergara, Camilo Jose (1997)  
 4.12 Wein2 (Alpha World) screen shot.  
 4.13 *ibid.*  
 4.14 *ibid.*  
 5.1 Times Square earthcam screen shot.  
 5.2 Wired magazine, "Making it Morph", 2.2000  
 5.3 *ibid.*  
 5.4 *ibid.*  
 5.5 Architectural Record, "The Millennium Futures to Come."  
 5.6 *ibid.*