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Doctorat en Filologia Anglesa

**The evolution of cyberpunk into
postcyberpunk**

**The role of cognitive cyberspaces, wetware
networks and nanotechnology in
science fiction**

Doctoral Dissertation

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Introduction: the 1980s scene, cyberpunk and its derivatives

Science fiction became prominent in the 1920s and 30s with the publishing of Hugo Gernsback and John Campbell's pulp magazines, *Amazing Stories* and *Astounding Stories*, respectively, both of which focus for the first time exclusively on the genre. From that point onwards, diverse stages in the development of science fiction (sf) predicated a strong critique on human institutions and took up again the old concerns of philosophy in regard to the meaning of life and the definition of human nature. Following the so-called 'pulp era', the Golden Age of science fiction in the 1940s and 50s developed a blind faith on technology as the solution to the human plight, and examined diverse figures such as robotics, space opera¹, cutting edge weaponry and time travel as a way to explore the potentials of defamiliarized new worlds. Subsequently, the period known as the New Wave in the 1960s and early 70s produced a radical shift in the scopes of sf, and centered its attention on social and human issues rather than on sheer technology: "In place of a rationalist belief in the effectiveness of technology and machinery to solve all human problems, [with the New Wave] there came an avant-garde 'experimental literature' fascination with the artistic possibilities of those very problems, and in particular a paranoid aesthetic in which large systems were seen as the enemies of individual difference" (Roberts 2000: 81).

Nevertheless, the late 1970s and the early 80s engendered an important and thoroughly different type sf focused on urban scenarios in near futures, and whose

¹ Space Opera: The subgenre of sf dealing with space travel by means of faster-than-light shuttles.

main subject is the influence of computer technology on daily life, leaving behind space opera, time travel and laser technology. The dystopian, paranoid and murky atmospheres, along with the depiction of leather-clad pariahs, computer hackers and networks, corporate power and cyborgs² came to inaugurate perhaps the most representative and original genre of science fiction in recent years: cyberpunk. In Sabine Heuser's words, cyberpunk stands as "a current within science fiction [that] has come to mean the tension or 'shock value' between 'high tech' and 'low life' represented by a version of cyberspace or virtual reality and a romanticized, usually male, hacker or cowboy who fights against [...] corporations" (2003: xviii). Such a contrast, 'high-tech vs. low-life', rendered a baleful, yet unfounded surmise about the future; it referred to the struggle of alienated individuals against corporate corruption and technological monopolies. In cyberpunk, hackers, antiheroes and scruffy loners penetrate and sabotage corporate databases and fight against institutional control. Diverse other cyberpunk narratives also introduce destructive technology (exterminating machines, oppressive cyberspaces and cyborg weaponry), violence, drug use and paranoia, as well as other issues such as globalization, the loss of individuality, mind manipulation, consumerism, and the struggle for survival.

Although cyberpunk initially springs from literature, it soon spread into film, graphic novels, manga, anime, and visual arts. It originates with a group of underground writers who identified themselves as 'the movement' or the 'mirrorshades' and include, among others, the works of William Gibson, Bruce Sterling, John Shirley, Rudy Rucker, Michael Swanwick, Pat Cadigan, Lewis Shiner, Richard Kadrey and Bruce Bethke. The label 'cyberpunk' itself constitutes a

² Cyborg: a cybernetic organism, a blend of the organic and computers. A thorough definition and analysis can be found in chapter I of this work.

portmanteau derived from ‘cybernetics’ and ‘punk’, the American-British counterculture movement of the late 1970s from which the genre took numerous ideologies and aesthetics: “The invention of the c-word [cyberpunk] was a conscious and deliberate act of creation on my part”, writes Bruce Bethe, the coiner of the term. “In calling it that, I was actively *trying* to invent a new term that grokked the juxtaposition of punk attitudes and high technology” (2003: web, italics in original). In addition to the works of the aforementioned authors (of which Gibson’s *Neuromancer*, Rucker’s *Software* and Sterling’s *The Artificial Kid* are perhaps the most representative ones), classic examples of cyberpunk include the films *Blade Runner*, *The Lawnmower Man*, *Tron*, *Brainstorm*, *Robocop*, *The Terminator*, *Tetsuo*, *Hardware (M.A.R.K 13)*, *Freejack*, *Johnny Mnemonic*, *Nirvana*, *eXistenZ*, and *Paranoia 1.0*; the graphic novels (later turned into anime films) *Akira*, *Ghost in the Shell*, and *Battle Angel Alita*, diverse videogames such as *Snatcher*, *Neuromancer* (based on Gibson’s novel) and *Syndicate*, and the works of visual artists such as H.R. Giger.

In this manner, cyberpunk’s success, especially among critics, attracted the attention of the public and of intellectuals (such as Timothy Leary), and generated copious attempts to study and extrapolate its contents. The scholars’ interest on its intricate configuration and allegoric significance led to the publishing of an incredibly large number of academic studies in which cyberpunk is defined as “a new way of doing science fiction in both literature and film [...] featur[ing] a hard-boiled style” (Maddox 1992: 43); “[a] subgenre of science fiction; postmodern pulp characterized by a mixture of moral corruption, technological obsession, ambiguous identity, and loss of bodily integrity” (Starrs 1997: 148); “[the] representation of the cultural modification of identity [that] can be understood as the result of the late-capitalist

extension of the commodity structure” (Foster 2005: 74); “the commodification of culture, the invasive development of information technology, a decentering and fragmentation of the ‘individual’; and a blurring of the boundaries between ‘high’ and ‘popular’ culture” (Rutledge 2005: web); and, finally, as “a very restricted formula; to wit, novels about monolithic corporations opposed by violent, leather-clad drug users with wetware³ implants” (Shiner 1992: 17).

As noted, cyberpunk’s success and the richness of its up-to-date images spawned massive reviews and critique. The genre itself soon derived into diverse subgenres, all of which focus on specific subjects. Biopunk, for instance, specializes in genetic engineering and biotech; steampunk deals with age-of-steam technology set in Industrial Revolution times; splatterpunk magnifies the presence of violence; and nanopunk explores the pros-and-cons of nanotech and nanostructures as microscopic mirrors of societies.

Nevertheless, the sinister ambiences created by cyberpunk, later extrapolated into these subgenres, appeared as a biased speculation of the future in which technology would become oppressive, a method of surveillance and social control, and an instrument of consumerism and brainwashing. The early stages of cyberpunk are known for its *technophobic* attitude; its narratives describe intimidating atmospheres in which low-lives challenge the pervasiveness of recondite powers, usually multinationals or governments.

Contrasting with cyberpunk’s technophobia and its Manichaeic demonization of globalization, postcyberpunk, a spin-off from the early 1990’s, promoted an

³ Wetware: embedded ports or chips acting as interfaces between man and machine. A thorough definition of wetware is provided in chapter I.

unbiased assessment of technology, analyzed the influence of computers from wide variety of unprejudiced perspectives and, mainly, approached the social issues that cyberpunk overlooked in regard to the benefits of modern technology. Cyberpunk's pessimistic perspectives, as we later came to know, developed from paranoid speculations about the impending presence of computer technology in the 1980s, since these machines were still unavailable in those years and they were deemed to become oppressive, deleterious and constrictive. Nevertheless, as soon as computer technology became more accessible in the mid 1990s, the fatalist views of cyberpunk were left behind while a new generation of sf authors rendered neutral and profound examinations in their narratives about the impact of cyber-technologies and thus gave postcyberpunk a boost to manifest itself as a solid genre: "Postcyberpunk possibly emerged because SF authors and the general population began using computers, the Internet, and PDAs to their benefit, without the massive social fragmentation of this Information Revolution predicted in the 1970s and 1980s" ("Postcyberpunk" 2007).

In addition, cyberpunk was declared dead (quite a drastic statement) inasmuch as it became schematic and dogmatic; it was "bowdlerized and parodied and reduced to a formula", as Bruce Sterling predicted. (Sterling in Swanwick 1986: 46) To provide a fresh scope on cybernetic culture and the globalization of informatics, postcyberpunk took up the baton and approached diverse issues related to our modern socio-economic structures, proposing up-to-date paradigms, the necessity to include technology in our lives and more objective examinations of these phenomena within its narratives. In this manner, a group of authors, among them Greg Bear, Greg Egan, Neal Stephenson, Raphael Carter, Charles Stross, Richard Calder and Richard Morgan, introduced innovative works that discussed an assortment of contemporary subjects (most of them disregarded or shallowly approached by cyberpunk) such as

nanotechnology, feminism, biological reproduction, family structures, education, information, alternate universes, mythology, political paradigms, the afterlife, the meaning of life, epistemology and philosophy. Additionally, postcyberpunk narratives alternate the dystopian environments of cyberpunk with utopian settings or, more accurately, with detached, unbiased depictions of cybernetic societies.

In spite of the success of postcyberpunk and the other derivatives (nanopunk, biopunk), these genres never received the abundant academic attention that cyberpunk obtained. A simplistic debate on the relevance, or even the actual existence of postcyberpunk, occurred online and rarely in scholarly essays. Lawrence Person, perhaps one of the few serious apologists, became the first academic to define and explore the genre. Although his claim is questionable, Person signals Sterling's 1988 novel *Islands in the Net* as the first postcyberpunk work. "Arguably, science fiction entered the postcyberpunk era in 1988 with the publication of Bruce Sterling's *Islands in the Net*. Just as Sterling's *The Artificial Kid* encapsulated many of cyberpunk's themes before the movement had a name, *Islands in the Net* prefigured a growing body of work that can (at least until someone comes up with a better name) be labeled postcyberpunk" (1999: web). Nevertheless, the book was published quite early in the 80's when the cyberpunk movement was still producing its main oeuvre, and still retains the Manichean views of cyberpunk, all of which makes it ineligible as an example of postcyberpunk: Person's seminal definition of postcyberpunk, however, effectively enumerates some of its most important traits, identifies its contributions, and provides the basis to recognize it as an independent and solid genre:

Postcyberpunk uses the same immersive world-building technique [as cyberpunk], but features different characters, settings, and, most importantly, *makes fundamentally different assumptions about the future*. Far from being alienated loners, postcyberpunk characters are frequently integral members of society (i.e., they have jobs). They live in futures that are not necessarily dystopic

(indeed, they are often suffused with an optimism that ranges from cautious to exuberant), but their everyday lives are still impacted by rapid technological change and an omnipresent computerized infrastructure (Person 1999: web, my emphasis).

Nonetheless, the lack of copious criticism and the absence of more abundant definitions sparked a simplistic and shallow online debate about postcyberpunk's validity as a genre. In this sense, some websites refuse to acknowledge the label as such because of the scarcity of real evidence that indicates its existence and because of the similarity with other cyber-narratives; this is the case of the site 'Postcyberpunk? Why not Cyberpunk 2.0?', which advocates for the evolution of cyberpunk into a more complex genre rather than the existence of an entire new category:

Many of the works cited as post-cyberpunk hardly elicit positive futures – 'technology IS society' seems hardly that different in these from 'technology has destroyed society'. [...] So if we want to modernize the term cyberpunk, lets catch the wave and settle on Cyberpunk 2.0! Like Web 2.0, we can assign anything currently "cool" to this term. [...] And yes, the phrase was probably catchy back in 1998. After all, Posthuman was big then too. And while Posthuman sort of means something real, as in hearing the term, most everyone can make a visceral connection with it and at least guess at its meaning, post-cyberpunk seems far less so ("Postcyberpunk? Why not Cyberpunk 2.0?" 2006: web).

Such tirades against poscyberpunk overtly contrast with the feverish support of some critics who claim that this new genre dispenses with the dystopian backdrops of cyberpunk and, instead, focuses on the positive influence of technology and computers. "I will bet that the digital counterculture" writes Paul Saffo "will reject this [cyberpunk's] bleak vision of a future. This new movement will be cyberpunk imbued with human warmth, substituting a deep sense of interdependence in place of lone-wolf isolationism. Cyberpunks envision humans as electronic cyber-rats lurking in the interstices of the information mega-machine; the gospel of the post-

cyberpunk movement will be one of machines in the service of enlarging our humanity” (1993: web). Furthermore, although cyberpunk’s derivatives are all determined by the ‘punk’ suffix (indicating the struggle of vulnerable individuals against oppression), postcyberpunk relinquishes a unitary depiction of desolation and despair ascribed to such a term, and rather favors the portrait of technological benefits: “The main argument against the death of cyberpunk is that only the superficial and most extreme ‘punk’ elements of the genre have been abandoned. The so-called post-cyberpunk literature still shares the sensibility that set cyberpunk apart as a genre of science fiction” (“Postcyberpunk?” 2010: web). In Person’s view, “cyberpunk tended to be cold, detached and alienated, [whereas] post-cyberpunk tends to be warm, involved, and connected” (1999: web).

Although these descriptions attempt to define the genre’s essential characteristics, no profound analysis of postcyberpunk has been produced to date, and no monographs been published thus far. To fill in that gap, it is my intention to clarify the limits and constituents of postcyberpunk, for which I engage here in a detailed analysis of the three most representative literary works that, in my view, determine the genre: Neal Stephenson’s *The Diamond Age Or A Young Lady’s Illustrated Primer* (1995), Greg Egan’s *Permutation City* (1994) and Greg Bear’s *Queen of Angels* (1990). The present dissertation also includes a conscious comparative study of these primary sources with other similar works in order to fully identify the constants and characteristics of the genre. The three main novels, the related works and the scanty scholarly criticism all clarify the main social issues and philosophical questions proper of postcyberpunk, mainly the relationship of computer technology with society, technology and technocracies. Other subjects examined by postcyberpunk are identity, post-nation states, post-industrialism,

biotechnology, longevity, immortality, education, the problem of the mind vs. the body, mental archetypes and the nature of cognition.

Since there is no actual scholar definition of postcyberpunk supported by case studies or monographs, and since there exists only one serious article that attempts to define the genre (Person), my hypothesis is directly related to try to establish a genuine delimitation of the genre by analyzing its main courses of action, its broad traits and its specific figures, making use of comparative resources and specialized theoretical frameworks. The hypothesis for this dissertation then is the following: postcyberpunk stands as an independent and solid genre of science fiction that incorporates both the main characteristics of cyberpunk and a new scope on other neglected themes, thus providing a more objective description of the relationship between computer technologies and modern societies. For this purpose I pay especial attention to several objectives that contribute to clarify particular cases and diverse allegories that reveal the impact of technology in the portrayal and understanding of our current culture.

The first objective is to acknowledge the complexity of postcyberpunk insofar as it makes use of other cyberpunk derivatives such as biopunk, nanopunk, oneiropunk⁴ and virtual paraverses⁵. In this way, postcyberpunk abandons the Manichean diegeses typical of cyberpunk in favor of objective examinations of modern societies. These subgenres then constitute different avenues into the plots of the novels I approach as they explore specific issues and subjects of our modern

⁴ Oneiropunk: a label of my own creation; the genre is associated with the exploration of dreams, the subconscious and the mind by means of computers and/or nanotech. In this sense, the mind and the networks derived from the interconnection of individual psyches are regarded as alternative types of cyberspace.

⁵ A cybernetic paraverse (a parallel universe) refers to an entire world created by means of computers. Functioning like real universes, the inhabitants of these environments hardly notice the spuriousness of the world they inhabit. A classic example of this is the virtual construct in the film *The Matrix*.

technologized culture as well as other fantasies, anxieties and defamiliarized backdrops that establish independent storylines within the complex narratives of these works.

The second objective is to prove that postcyberpunk usually presents a cyberpunk outset, a murky environment or an oppressive corporate atmosphere from which the actions depart. Such a setting is usually transformed into composite scenarios in which the characters either take advantage of a variety of technologies or undergo the influence of deleterious inventions. Cyberpunk thus remains alive throughout these narratives, usually modifying or influencing the decisions of the characters, while pessimism intermingles with a feverish desire to transform the status quo by means of cybernetic inventions.

One of the most important aims of this dissertation is to demonstrate that one of the principal differences between cyberpunk and postcyberpunk is the evident evolution of cyberspace, the virtual environments. In the former, cyberspace represents a global network where financial activity occurs; a hacker often penetrates such an atmosphere and disrupts corporate dominion. “A standing joke about cyberspace” Bukatman asserts “is that, in an era of ATMs and global banking, *cyberspace is where your money is*. So cyberspace is a financial space, a space of capital” (1993: 156, emphasis original). Nevertheless, in postcyberpunk cyberspace acquires diverse shapes and functions that range from oppressive financial domains (like in classic cyberpunk) to educational and scientific simulators, information havens and nano-particle conveyors. As noted, the mind is also regarded by several sources as an explorable cyberspace insofar as the brain is seen as a terminal of a neural mesh and the contents of the mind as data. Thus, the significant transformation of cyberspace responds to the authors’ preoccupations

about the current uses of computer networks, resulting in a heterogeneous panorama that examines the interactive capabilities and allegories of the net. Cyberspace, the main contribution of cyberpunk to science fiction, thus increases its potentials and capabilities in postcyberpunk; as a result, it undergoes a deeper, more aware scrutiny insofar as it is described as an elaborate, rich field rather than just a mere insidious instrument of corporations and governments.

The last objective is to demonstrate that, with a greater range of technological allegories, postcyberpunk authors also ventured into analyzing the prospects of epistemology, ontology, philosophy and cosmology. Diverse theories are proposed by means of various mechanisms and symbols, all of which attempt to explain the nature of our existence, the universe, human cognition or the subconscious. The key procedure for such a cognitive revolution lies on the dissemination of information by multiple means such as cybernetic networks, innovative didactics, virtual simulators, digitally encoded information, enhanced intelligence, etc. As opposed to cyberpunk's instinctive quest for individual survival, postcyberpunk authors advocate for the creation of collective minds, information societies, enhanced cognition, and the immortality of knowledge, all as a means to construct biocybernetic synergies that will allow humankind to magnify our understanding of the universe. In this manner, cognition, magnified by numerous inventions, constitutes one of the crucial subjects that differentiate postcyberpunk from other cybernetic narratives. Thus, biotech and nanotechnology play a decisive role in the evolution of societies whose new focus is on information and knowledge, turning postcyberpunk into a contributive and experimental label and not only a denouncing or exposing genre.

To best fulfill these objectives, the present work is divided into three chapters that analyze the works described above. The first chapter addresses Stephenson's *The Diamond Age*, focusing on the study of its different cyberspaces, its socio-political construct and diverse other social issues such as motherhood, femininity, cyber-patriarchy, post-industrialism, post-nation states, underground societies, nanotechnology, and educational paradigms. *The Diamond Age*, following the steps of Stephenson's previous cyberpunk work *Snow Crash*, regards computer and nanotechnology (with their pros and cons) as the main vehicle for the transformation of societies and political organizations.

The second chapter concentrates on Greg Egan's *Permutation City*, a novel that deals with scientific simulators, disembodiment and computer-generated worlds or immersive virtual universes where the minds of rich people dwell, and where scientific experimentation and philosophical introspection occur. On the other hand, Egan's book also depicts a detrimental financial backdrop that determines and governs the fate of the characters. The central issues explored in this novel are identity, alternate universes, quantum mechanics, immortality, body anxiety, the question of the mind vs. the body, cosmologies, and religious symbolism, all analyzed by descriptions of virtual realities, digital paraspaces, computer simulators, etc. Egan's proposal blends sf speculation with hard science facts and with fashionable scientific theories, a mixture of optimism and cyberpunk pessimism whose aim, more than a mere exposure, is a series of proposals concerning the construction of disembodied hyper-conscious synergies, the distribution of information and the development of critical knowledge.

The third chapter approaches Greg Bear's *Queen of Angels*, paying especial attention to its descriptions of institutional control and complex political

conglomerates. The book succeeds in presenting a simple but intellectually rich plot, teeming with profound reflections and meditations in the voices of the characters. Diverse dark scenarios contrast with sundry optimistic postures, while a constant revision of the struggle between free-will and social determination constitutes one of its central issues. The novel's rich setting examines diverse themes such as mythology, Jungian archetypes, determinism, corruption, hypocrisy, self awareness, identity, free-will and oneirospaces. *Queen of Angels'* main contribution is the cybernetic exploration of the mind, a cyberpunk-like narrative that, as part of my proposal, could be named 'oneiropunk', meaning the comparison of mental structures and cyberspace. The novel then underlines the use of cybernetics as a source of direct experimentation, a cognitive process that points at the evolution of thought and the creation of collective minds.

It is necessary then to compare these three works with other similar sources that contribute to the understanding and the consolidation of postcyberpunk as a genre. While some of these support works are comprised within postcyberpunk, others are mere precursors or belong to other genres; yet, they all supply indispensable elements to this analysis. Among the books to be used as a comparative references are Galouye's *Simulacron 3*, Carter's *The Fortunate Fall*, Gibson's *Neuromancer*, Stephenson's *Snow Crash*, Sterling's *Islands in the Net*, Calder's *Dead Girls*, and Cadigan's *Fools*, and *Mindplayers*; the live action and anime films *The Matrix* Trilogy, *Ghost in the Shell*, *Johnny Mnemonic*, *Paprika*, *The Cell*, *Welt am Draht*, *Appleseed*, *Eternal Sunshine of the Spotless Mind* and *Inception*; and the graphic novel *Transmetropolitan*.

For such a gigantic purpose it is necessary to include a rich theoretical framework that, according to the needs of these narratives, ranges from Aristotle to

the most fashionable intellectual schools such as Latour's 'Actor-Network Theory' or the works of Bordieu, Deleuze, Dreyfus, Fukuyama, Toffler, Lipovetsky, Maturana, Varela, et al. The reason to include such a wide variety of theories and not to follow one specific school for the entirety of this dissertation lies in the fact that, as Fredric Jameson described, cyberpunk is "the supreme literary expression if not of postmodernism, then of late capitalism itself" (1991: 491), even though cyberpunk failed to approach a indispensable issues such as social progress, reproduction, genetic engineering, etc. (as mentioned). Yet, if cyberpunk was so strongly associated with postmodernism (even with its restrictive Manichean postures), postcyberpunk then stands as the ultimate magnification of postmodernism in the sense that it includes an ample variety of issues and figures that require of specific theories to be analyzed.

In this sense, the critical stance of postmodernism against metanarratives⁶ implies the use of specific concepts to examine particular cases such as the heterogeneity of subjects approached by these postcyberpunk works. In my view, postcyberpunk constitutes a reflection of our rich socio-cultural (if not globalized) universe and thus it demands precise theories to approach the diverse settings included in these variegated texts. In this regard, Toffler's futurologist economical theories, for example, will provide the ground to describe the late capitalist settings

⁶ In regard to metanarratives Lyotard states that "Simplifying to the extreme, I define *postmodern* as incredulity toward metanarratives. This incredulity is undoubtedly a product of progress in the sciences: but that progress in turn presupposes it. To the obsolescence of the metanarrative apparatus of legitimation corresponds, most notably, the crisis of metaphysical philosophy and of the university institution which in the past relied on it. The narrative function is losing its functors, its great hero, its great dangers, its great voyages, its great goal. [...] Thus the society of the future falls less within the province of a Newtonian anthropology (such as structuralism or systems theory) than a pragmatic of language particles. [...] The application of this criterion [that the social is commensurable and determinable] to all of our games necessarily entails a certain level of terror, whether soft or hard: be operational (that is commensurable) or disappear. [...] Invention is always born from dissension" (Lyotard 1997: 36-37).

of these novels, while Bordieu's social postulates become ideal to examine the social structures continuously described in these sources, and so forth.

On the other hand, it is pertinent to say that the order of the chapters does not follow a chronological sequence of publication, inasmuch as *Queen of Angels* was the first book to be printed (1990) followed by *Permutation City* (1994) and finally by *The Diamond Age* (1995). I decided to disregard this timeline for the reason that, in the first place, the books approach different subjects presenting no mutual influence, and, secondly, because Stephenson's book introduces the clearest structure that could represent a discernable pattern, insofar as it clearly presents a cyberpunk outset which is eventually transformed into an intricate model that describes computer technology as a complex phenomenon that illustrates our present and possible future. *Permutation City* in turn appears more inclined towards an even more complex narrative strategy involving quantum mechanics and digital universes, which makes it more difficult to identify the traits of postcyberpunk, and, finally, *Queen of Angels* deals with very original and imaginative topics that could be better explained if a more intelligible model is previously presented. The richness and variety of *The Diamond Age*'s thematic framework, in my view, constitute not only an aesthetic model but also a comparative paradigm and a clear example for further analysis, especially since the ultimate purpose of the present research is to act as a seminal prototype for future investigations on the subject.

Finally, due to the complexity of the novels, a plot summary is provided at the beginning of each chapter in order to provide the reader with the key elements to follow the analyses and to emphasize the fact that complexity and heterogeneity constitute an intricate element of these works.

CHAPTER I: Socialized computer networks: the reaction of *The Diamond Age* to cyberpunk's technophobia

Plot summary of *The Diamond Age*

Neal Stephenson was born in Maryland in 1959. His postmodern literary oeuvre comprises a variety of genres and modes that ranges from fantasy literature to cyberpunk and fiction about alternate realities. His works, a medley of historical novel and science fiction, focus on up-to-date issues such as the dissemination of information, corporate power, nanotechnology, computer networks, the distribution of money and quantum mechanics. Two of his novels, *Snow Crash* (1992) and *The Diamond Age or A Young Lady's Illustrated Primer* (1995), are especially famous for their descriptions of alternate types of cyberspace and for the popularization of indispensable words such as 'avatar' and 'metaverse'⁷.

The Diamond Age is a Bildungsroman that makes use of a miscellany of techniques and themes, and mixes utopian fantasies with dystopian backdrops. Although the plot of *The Diamond Age* remains difficult to summarize due to its multiple strata and its complexity, two main avenues constitute the infrastructure of the narration: the coming-of-age of a low-class girl (Nell) surrounded by violence, and deprivation, and the corporate incidents of highly literate nano-engineer John Percival Hackworth.

The book's near-future setting involves a post-nation Shanghai in which the leaders of diverse 'tribes' (mainly the Confucians, the Victorians, the Nipponese, the

⁷ Avatar: the digital representation of a person in cyberspace. Metaverse: a meta universe, a cyberspace where avatars mingle and discuss business and other issues.

Koreans, the black community and the 'Thetes' or tribeless) vie for technological, hence, political supremacy. Victorian dignitary Lord Finkle-McGraw commissions Hackworth to develop an experimental interactive device (analogous to an electronic book) intended to educate young girls by means of a unique combination of cognitive, emotional and practical resources that will turn them into analytical polymaths and leaders. Such a state-of-the-art e-book (known as the Primer, like the elementary textbooks) interconnects the user with a cybernetic network of 'ractors' (interactive actors). The main role of these ractors is to control avatars who partake in theatrical live performances within virtual realities. Their twofold function is to fulfill extravagant fantasies for their customers and to perform in basic Sesame-Street-style responsive didactic simulations for children. Eventually some of these ractors will become personalized virtual tutors.

Hackworth desires to provide his own daughter (Fiona, aged 4) with a copy of the Primer, duplicating it illegally from the one he designs. He will eventually lose it in the slums as Harv (Nell's brother) mugs him and hands it over to his 4-year-old sister. Nell uses the Primer to acquire street-smartness and escape her oppressive home atmosphere: her mother's multiple lovers abuse her on a constant basis after her father, Bud, a violent alienated cyborg, is sentenced to a nanotech-induced death for robbery.

By means of the interaction with Nell through the Primer network, ractor Miranda senses her current danger derived from the violence she experiences at home and decides to aid her, eventually becoming her virtual, anonymous tutor and foster mother. In this manner, Nell learns to read and write and to acquire practical skills by taking part in a simulation in which a virtual girl (her eponymous 'avatar') is to be guided through different episodes in an artificial fairy-tale atmosphere, which

constitutes an entire alternate narration, a fantasy subplot of the novel that mirrors Nell's real circumstances.

Meanwhile, Hackworth is soon apprehended and tried by Confucian Judge Fang who sentences him to a 10-year imprisonment for the theft of intellectual property (the Primer). Fang also forces him (along with Dr. X, a highly ranked Confucian Mandarin, hacker and philanthropist) to decrypt the Primer for the Confucians in exchange for a sentence reduction. The plan is to use the Primer to educate thousands of Chinese orphan girls rescued from organ-mongers and slave-traffickers. Taking advantage of this, Hackworth manages to secure a copy of the Primer for his daughter, and, because of that, he is later blackmailed by Lord Finkle-McGraw into becoming a double-agent against the Confucians.

The feud between the Confucians and the Victorians turns out to be about the monopoly of a molecule current known as the 'Feed'. The Feed is a system that, like our electric grid, conveys pure atoms to special machines known as Matter Compilers installed in every household in order to combine basic molecules and produce (or forge) items and goods such as food, clothes, weapons, instruments, etc. To counter the power and oppression of the Victorians, the Confucians intend to develop the 'Seed', a democratized version of the 'Feed' that will allow them (and other tribes) to access their own molecule-stream and produce high-tech weaponry and thus gain economic independence.

By the end of part one Nell flees her oppressive home and gets entangled in a series of exploits throughout the city, while Hackworth is sent to the U.S. and Canada at Dr. X's behest in search of The Alchemist, a mysterious character who is expected to provide key information for the developing of the 'Seed'. In the second part Nell

reaches Victorian territory and meets Constable Moore who looks after her. He enrolls her in a Victorian school where she meets Lord Finkle-McGraw's granddaughter Elizabeth, as well as Fiona Hackworth. At this school, the true power of the Primer is tested among girls of different social classes. After being educated as a genuine Victorian, Nell graduates from school and leaves to seek her fortune, motivated by her tutors. She arrives in the Pudong economic zone where she works in a brothel as a scriptwriter of erotic-fantasy performances. Meanwhile, all over Shanghai, the army of the 'Fists of Righteous Harmony' (Chinese fundamentalists who recall the Boxer Rebellion) is plotting a xenophobic uprising that intends to kill all foreigners and thus liberate the Confucians from Victorian impositions.

On the other hand, while looking for 'the Alchemist', Hackworth is captured by a clandestine society formed by an immense network of people (the Drummers) who live in perennial trance in underwater tunnels and who perform perpetual, hypnotic sexual intercourse in order to exchange nano-bots through their body fluids. These nano-entities are responsible for carrying information from one body to another, thus forming a sizeable web of collective consciousness and data exchange. After ten years of imposed sexual activity and seclusion, Hackworth emerges from the trance and returns to Atlantis-Shanghai, where he finds out that his wife has divorced him and his daughter Fiona has grown up into a conventional Victorian young lady. Eventually he discovers that he himself is 'the Alchemist' and that Dr. X has sent him to the Drummers to serve as their leader and merge their collective mind in order to facilitate the final development of the Seed.

Simultaneously, the xenophobic revolt grows and the Fists manage to capture and rape Nell, who reacts by organizing an army out of the Han orphan girls (raised by Dr. X via the Primer) to battle them. Nell and Hackworth finally meet and get

involved in a close friendly relationship. Together, they soon depart to look for missing Miranda who had joined the Drummers long ago in a desperate attempt to locate Nell. They both rescue her before she is sacrificed in a massive nano-tech orgy, as a large group of hypnotized men are commanded to penetrate her and deposit their nano-sites within her blood and thus, compile a larger body of ecstatic knowledge.

As a classic technique in Stephenson's novels, the book lacks a real denouement, insofar as "characteristic of his style is the 'breakdown in events', typically about three quarters into the novel. This is an acceleration in plot development, accompanied by chaos, confusion, and often violence, and an abrupt ending with no conventional denouement and many loose ends." ("Neal Stephenson" 2007: web) In this sense, the question of whether the Seed is finally developed or not is never answered, although it is suggested that Nell will find the way thanks to her intelligence. Many of the subplots are then left unsolved for the reason that the novel actually concentrates in exposing conflicts rather than in wrapping up plot lines. In this manner, *The Diamond Age* represents a critical exploration of problems such as traditional education, the influence of nanotechnology, cultural relativism, globalization, patriarchal power, and cyborg technologies.

I.1 The male struggle for supremacy: technocracies and post-nation states

I.1.1 Bud and Harv: lowlife cyborgs and other vestiges from cyberpunk

The purpose of this section is to introduce the dystopian traits typical of cyberpunk present in *The Diamond Age* by means of the analysis of two male characters associated with the lowlife: Bud (Nell's father) and his son Harv, both antiheroes who embody social determinism and conformism. As mentioned, the initial murky atmospheres inherited by cyberpunk will be eventually transformed into complex settings that examine the current status of our societies as well as the insidious influence of technology and corporate power in the shaping of the intricate physiognomy of these sectors of society.

The political structure and the new social order outlined in *The Diamond Age* derive from Stephenson's previous novel *Snow Crash*, which presents a geopolitical division consisting of a set of colonies identified as 'Burbclaves' (suburban enclaves) and Franchulates (political franchises), both assembled by peoples with common interests. In contrast, in *The Diamond Age* the Earth is organized in diverse city-states pertaining to different 'distributed republics' whose territories are scattered around the planet. This enables Stephenson to examine various aspects of our current globalized order, its new economic alternatives (like post-capitalism) and other issues such as the success and failure of ancient social philosophies that, in the novel, are labeled as New Victorianism or New Confucianism. Cyberpunk's descriptions of cyberspace and corporate governments evolve here into a composite social configuration enriched by the presence of nanotechnology, all of which spawns a new critical vision of our current geopolitical situation. In this sense David Chute asserts that:

In [...] *The Diamond Age*, Stephenson seemed to step out from behind the neon curtain. The skateboard/hacker/speed-metal trapping [of *Snow Crash*] are gone, the tone is much more earnest and analytical. This is a big fat mock-Victorian science fiction novel that extrapolates the Burbelave and Franchulate concepts into an even more radically evolved future. The agent of social mutation here is pervasive nanotechnology, the material-world analog of the hacker viruses in *Snow Crash*, sub-microscopic fabricating machines that can transform matter from within, rebuilding it atom by atom. Pride of place among the 'Claves belongs to the Neo-Victorians, sober, honorable and at times ponderous fellows who have reclaimed some of the most fruitful (and unjustly discredited) attitudes of the past (Chute 1999: web).

Of such 'Claves', capitalistic mixtures of territory, wealth and ethnicities, the 'Thete' subgroup represents the lowest rank, owning no land, instead inhabiting the so-called 'leased territories' where violence is rife. Most of these tribeless characters are presented as conformists uninterested in social mobility whose only ambition is to form petty autocratic retreats or manageable families; the violence and nihilism of these circles derives from the unequal distribution of wealth, opportunities and, mainly, education. Class struggle is then described as the pointless struggle of lumpenproletariat, class traitors and petty tyrants who, unable to overcome the barriers of late capitalism, rather assimilate what Gramsci calls 'cultural hegemony'⁸. As a result, the extremely rich retain the technological superiority while the pauperized classes indulge in paltry pleasures, all of which amounts to a binary social stratification that recalls cyberpunk's antithetical environments.

The lower classes then engage in vicious circles, without the possibility of developing class-consciousness (lumpenproletariat), and rather cling to shallow

⁸ As Antonio Gramsci disclosed, communism failed to spread over most industrialized countries in the early 20th century due to the fact that workers harbored patriarchal-related desires and expected to get rich at some point. The workers of most nations did not seek equality or justice, but wealth and comfort, absorbing the ideologies of the rich: "Antonio Gramsci, like Pareto, was concerned with the role of culture in a ruling group's domination of a social order, which he termed 'cultural hegemony' (cultural domination). Though Gramsci was a Marxist he did not regard the ruling ideas of an era as the ideas of a ruling class. Instead he suggested that cultural hegemony is maintained by the promotion of *any* culture that accommodates people to their social fate, so long as it does not threaten ruling-class interests" (Hall 2003: 183).

fantasies regarding the acquisition of wealth without bothering with the thought of social equality. Bud, for instance, a cyberpunk bodily-armed cyborg, fails to develop class vision or social aspirations. As a small-time criminal, Bud inevitably nurtures a spiteful, unconscious xenophobic complex against the social climbers around him such as the black community: “Bud enjoyed getting [...] respect from black people—it reminded him of his noble heritage in the trailer parks of North Florida—and, [since he mugged them violently], he didn’t mind the money either” (30)⁹. Ironically, Bud’s distorted idea of a ‘noble heritage’, his ostentatious ancestry, produces in him a series of narcissist imageries and self-grandeur fantasies. To prop such a superiority complex, he challenges and attacks the black community, a classic behavior of petty tyrants who, after failing to ameliorate their social status, harass other vulnerable strata and impose their power on those ‘weaker’ classes.

The prosperity of the black community threatens Bud’s financial stability, but mostly his ideological integrity, eliciting frustration and resentment, as well as an innate compulsion to support patriarchal hierarchies and white supremacy. Bud’s goal is never egalitarianism or the amelioration of his family’s social status, but to become magically and effortlessly a nobleman by acquiring wealth. Technology and violence represent for him the mythos associated with the lottery, a quick and easy manner to access money that highlights the level of ‘cultural hegemony’ he has absorbed. He endorses patriarchy and capitalism by harboring a persistent fantasy of acquiring swift wealth at others’ expense; rather than developing class-consciousness and striving for the betterment of society as the other characters do, Bud favors military technology as a means to produce and retain his petty fortune.

⁹ All the quotes from *The Diamond Age* in this section belong to Stephenson 1995.

Bud's combat implants blend cyberpunk's subversive spirit (manifested in his body enhancements) with a personal struggle between liberation and constrain. Bud makes use of these implants to reinforce his violent personality and his lesser authority, a psycho-pathological profile that blends transgression, contestation and submissiveness all at once. His aggressive cyborg nature is seditious and antisocial, and conservative only in regard to his own integrity; his bodily implants, the weapons that preserve his stability, induce in him a sense of almightiness that enables him to fantasize about dominion and control. His military inserts allegorize the classic methods (institutional violence, militarism and police force) employed by patriarchy to retain its supremacy over the lower classes.

On the other hand, cyborg techno-grafts are originally designed to liberate humankind from natural handicaps and social determination insofar as the cyborg, like the golem, constitutes a set of technologies that manipulate the natural and contest the social. "In this connection the golem and cyborg myths", writes William Covino, "involve coercive verbal magic that can be both subversive (uttered in the name of liberation) and conservative (uttered in the name of a status quo)" (1996: 357). Nevertheless, Bud's cyborg inserts, although initially intended to give him freedom and enlarge his physical skills and social perspectives, actually turn him into a manipulable pawn of capitalism, a golem in a system whose only goal is to spread its patriarchal ideologies onto the lower strata of society.

For Bud, such a "coercive verbal magic" has barely anything to do with a liberating consciousness, unlike what characters feel in those other cyborg narratives

obsessed with the amelioration of the social such as *The Six Million Dollar Man*¹⁰. On the contrary, Bud's cyborg implants relate to the assimilation of 'cultural hegemony' and patriarchal ideologies by which he becomes a minor antisocial tyrant whose objective is an egotistic fantasy about self-survival. Bud undergoes a mental 'commodity pervasion', a capitalistic acculturation that excludes spiritual perspectives and retains the obsession about economic steadiness. Bud's inserts are associated with robotic behavior and, hence, with financial control, a classic theme in cyberpunk narratives that deal with alienation and cultural hegemony also defined as the 'American dream'¹¹.

In the opening setting of *The Diamond Age*, the lower classes assimilate a series of ideologies by means of technology (such as cyborg implants) which demonstrate how machinery can convey the doctrines of the ruling classes. In this sense, "cyberpunk technology is inside, not outside, the personal body and mind itself" (Suvin 1992: 352). Thus, although cyborg technologies were initially conceived as liberating, in the end, they actually constitute a means of control and social repression. In spite of the fact that cyborg narratives are associated with countercultural and contesting attitudes, the neutrality and welfare originally intended to emanate from these technologies is eventually transformed into "repressive social structures and institutions" generated by the "mechanized control of social life, of the body itself and the hardening and exteriorization of certain vital forms of knowledge, the crystallization of Cartesian spirit into material objects and commodities. [...] This

¹⁰ *The Six Million Dollar Man*, a 1973 TV series spawned from the 1972 Martin Caidin's novel *Cyborg*, was one of the first descriptions in which cyborg technologies serve beneficial purposes and not oppression as in cyberpunk narratives.

¹¹ Michael Moore unwittingly makes reference to 'cultural hegemony' in his 2009 documentary *Capitalism: A Love Story*. In it, he shows that 1% of the U.S. population possesses more money than the remaining 99% altogether, and yet the poor support the capitalistic lifestyle insofar as they themselves desire to be rich at some point. Cultural hegemony is then renamed by Moore and other ideologists as the 'American dream'.

was not inappropriate: the French ‘cybernethique’ was coined in 1834 to describe the art of governance” (Bould 2005: 218).

In this manner, Bud’s implants, an inheritance of the dystopian atmospheres of cyberpunk, are related to corporate and postindustrial doctrines and produce, indirectly, a manipulative power over him. Bud is associated with digital capital, strong propaganda and automated tasks, all identified with mechanized consumerist behaviors. His militarized implants are founded on a series of computer-like unavoidable routines that turn him into an inveterate consumer whose only desire is money. Bud obtains his implants in an apparent state of mental freedom, but his assimilated ideologies are actually responsible for the unconscious desire he generates for them, especially since they represent his most important source of income.

Cyborg technologies initially emerged both in fiction and reality¹² as restorative resources and sensorial enhancements; because of this, they soon challenged the technophobia from early industrial times shown in seminal sf works, including Shelley’s *Frankenstein*. These grafts constitute alternative models that describe bodily technologies as beneficial and generate an admiration and acceptance that contrast with those ancient fears towards threatening artificial intelligences (AI) or the robotization of labor. Cyborgs then become the banner of the favorable uses of bodily technology. Far from “the acclaim and fear evoked by industrial age machines for their ability to function independently of humans”, Claudia Springer writes, “cyborgs incorporate rather than exclude man, and in doing so erase the distinctions previously assumed to distinguish humanity from technology” (1991: 306).

¹² Cochlear inserts, insulin pumps, interfaces for the speech-impaired and pacemakers are among the implantable electronic devices that, far from being encumbrances, have opened new avenues toward health technologies and new perspectives on cyberware.

In this manner, with the advent of cyborg technologies, the human body has ultimately been regarded as a cybernetic machine in which sets of rules and specialized organs work in conjunction to attain self-regulation. The similarities between body and machine led in the 1980s to a scholarly revolution that resulted in the development of biocybernetic theories that describe living organisms in terms of command and collaboration. The viewpoints of Maturana, Varela or Wiener (who coined the term ‘cybernetics’ in the 1960s) enclose a radical manifesto that enables us to study living organisms and societies as complex synergies; these theories suggest that “biological bodies and mechanical bodies are self regulating systems [...] that work in terms of control and communication” (Wiener 1961: 43).

As key participants in the impending evolution of humankind derived from technological applications, cyborg technologies allow humans not only to enhance their physical capabilities and expand their sensoria but also to adapt to adverse conditions and to endure natural and social hardships. Clynes and Kline, the coiners of the term ‘cyborg’, noticed these qualities, and, studied the benefits of the communion between man and machine, mostly the adaptation to adversity:

This self-regulation must function without the benefit of consciousness in order to cooperate with the body's own autonomous homeostatic controls. For the exogenously extended organizational complex functioning as an integrated homeostatic system unconsciously, we propose the term "Cyborg." The Cyborg deliberately incorporates exogenous components extending the self-regulatory control function of the organism in order to adapt it to new environments (Clynes 1960: web).

The classic aims of fictional cyborg technologies (*The Six Million Dollar Man*, Robocop, Darth Vader, Ironman, the cyborgs in *Ghost in the Shell*) originally included the adaptation to the environment, sensorial intensifiers, physiological restoration, longevity and the quest for immortality. The fusion between man and

machine provides a full shift in our understanding of human nature as well as a solution to the fragile plight of humans in regard to the environment and to the limitations of the body. Yet for Bud, a representative of the dystopian atmospheres of cyberpunk, his enhancements stand as proof of his subordination to the industrial and military ambitions and to the pervasive capitalistic ideologies associated with patriarchal power. Such a connection encourages him to emerge as a petty authority, insofar as he embodies, at a low scale, the desires and ambitions that corporations incarnate at a large level. Bud is not a medical nor a sensorium-enhanced cyborg, but actually a militarized cyborg, and as such he absorbs the ideologies that derive from the higher circles that control him via the economic doctrines associated with his bodily implants.

Cyborg technologies magnify human capabilities and thus produce paranormal entities comparable only to superpowerful divinities; on the other hand, they also generate conscienceless militarized automatons who uncritically follow commands and overlook the malevolent intentions of authorities. These contradictions have raised an interesting debate about the values and disadvantages of cyborg technologies since, on the one hand, they expand human skills and consciousness but, on the other, cyborgs are prone to oppression, control and ideological manipulation like Bud. In this regard, Donna Haraway, an apologist and theorist, identifies cyborg technologies as agents that transgress three types of boundaries: 1) between human and animal; 2) between organism (animal-human) and machine; and 3) between the physical and the nonphysical (software, for instance), taking for granted that gender boundaries are also obliterated. According to Haraway, cyborg narratives also help to contest the power of patriarchy by means of the reappropriation and equalization of gender roles. The magnification of gender traits through enhancing cyborg implants

constitutes a sensitive rearrangement of the interrelation between power (associated with man and his organizations) and receptivity and perception (related to the feminine side of humans); in this sense, enhanced males are able to acquire feminine visions while female cyborgs are introduced in the manly world of power, an issue that Kathyne Lindberg identifies as part of the ‘maps of power’ that compose our complex societies:

Cyborgs, cyberpunks, and/or postmodern writing machines are also ‘maps of power’ that plot social relations and political representation(s). The military origins and secretly engineered workings of information systems must give pause, even to those, including Haraway, who harbor faith in progressive reappropriation, while facing the fact that ‘modern war is a cyborg orgy, coded by C3I,’ which, building upon Wiener’s coinage, means ‘command control communications intelligence’ (1996: 53).

In this way, Bud’s desire to build a small personal patriarchy (a product of his assimilated cultural hegemony) compels him to exploit his masculine traits (natural or acquired) and thus becomes a heavily built, hypermasculinized, militarized figure. His augmented image reveals the main drawbacks of cyborg technologies: the assimilation of automatic conscienceless roles, a proclivity to oppression and the absorption of patriarchal ideologies. Bud makes use of his implants not only to enhance his sensorium but also his physique, a condition that will bring him respect out of fear; in this manner, he embodies one of the main methods that corporations and governments employ to keep the masses under control. Bud’s cyborg inserts provide him with brute force and a hypermasculinized image, two elements that, along with the capitalistic ideologies he absorbed, modify his worldview as shown below:

On a previous visit to the mod parlor, two years ago, he had paid to have a bunch of ‘sites implanted in his muscles—little critters; too small to see or feel, that twitched Bud’s muscle fibers electrically according to a program that was supposed to maximize bulk. Combined with the testosterone pump embedded in

his forearm, it was like working out in a gym night and day, except you didn't have to actually do anything and you never got sweaty. [...] But few people hassled Bud, even when he knocked them down in the street. [...] Bud had a rich and boundless career ahead of him, vaulting up a hierarchy of extremely dangerous drug-related occupations [...]. A start weapons system was a wise investment (1).

Bud's hypersexuality and enhanced physique turn him into a minor despot, while his indoctrinated masculinity participates of the foundation of patriarchy and capitalism. Through his commodified body, Bud represents a male-driven mercantilism. Nevertheless, the set of technologies that empower him can also be used by women to contest man's muscle-based power, for "the cyborg [, afterall] is a creature in a post-gender world." (Haraway 1991:150). An augmented woman, in this manner, can become as strong as a man and contend with him in physical terms or, at least, challenge his methods and goals. Such considerations elicited feverish scholarly debates on the subversive capabilities of cyborgs. While Claudia Springer, for instance, argues that in films, cyborgs "appear masculine or feminine to an exaggerated degree" and that "gender boundaries are treated less flexibly" (1991: 308), John Christie rebukes the 'liberating' role of cyborg technologies by asserting that "there is nothing [...] liberated about the cyborg in and of itself. Rather [...] its capacity for absorbing and reproducing classical and modern settings, figures, and narratives is precisely its most marked and problematic figure" (1993: 183).

In the first stages of *The Diamond Age* we learn that Bud has assimilated the tenets of male supremacy by enhancing his physique. In this manner, Bud incarnates a metaphor of the power derived from militarized machinery and embodies the doctrines emitted from above in the shape of masculine technology. As a result, Bud also becomes paranoid about the ideological side effects of his implants, inasmuch as he grows aware of the way corporate powers use such technologies to inflict

propaganda by means of intrusive methods such as hacking, as exemplified in the following excerpt:

You could get a phantascopic system planted directly on your retinas, just as Bud's sound system lived on his eardrums. You could even get telæsthetics patched into your spinal column at various key vertebrae. But this was said to have its drawbacks: some concerns about long-term nerve damage, plus it was rumored that hackers for big media companies had figured out a way to get through the defenses that were built into such systems, and run junk advertisements in your peripheral vision (or even spang in the fucking middle) all the time—even when your eyes were closed. Bud knew a guy like that who'd somehow gotten infected with a meme that ran advertisements for roach motels, in Hindi, superimposed on the bottom right-hand corner of his visual field, twenty-four hours a day, until the guy whacked himself (40).

The Diamond Age's descriptions of cyborg technologies contribute to the debate about the advantages and drawbacks of bodily implants, insofar as, on the one hand, these devices provide humans with extraordinary, heightening capabilities such as the 'telæsthetics', 'phantascopics' and 'sound systems' that magnify perception and consciousness, yet, on the other hand, they facilitate the absorption of corporate ideologies through diverse techniques such as mind-encroaching and hacking. Cyborg technologies, furthermore, afford an opportunity to discern and challenge patriarchal ideologies, since "single vision", Haraway states, "produces worse illusions than double vision or many-headed monsters. [...] In our present political circumstances, we could hardly hope for more potent myths for resistance" (1991: 154).

In Haraway's optimistic view, cyborg implants, far from being repressive (they can be used to manipulate the mind), actually constitute a means to resist patriarchal domination due to the enhanced consciousness brought about by sensorial heightening. Cyborg technologies, for instance, expose the compulsive desire of patriarchy to dominate minorities (especially women), since machinery, for instance, has consistently represented a means for men to substitute human labor or womanly

reproduction. In this regard, Dani Cavallaro identifies cyborgs as composite entities by indicating that “(1) the cyborg is both a creature of myth and a creature of social reality; (2) the cyborg incarnates conflicting visions of power and powerlessness; [and] (3) the cyborg embodies cultural fears and anxieties” (2000: 46). In this sense, a cyborg’s self-restoration capability and his artificial essence are associated with the classic attempt of man to take control of the social. Through a gimmick imitation of procreation, man’s technology allows him to fantasize about dispensing with the power of reproduction of women and, thus, about obtaining independence from her and from the gods, his other long hated rivals, since, as Haraway states, “modern machinery is an irreverent upstart god, mocking the Father’s ubiquity and spirituality” (1991: 153). In this manner, cyborg technologies are the first step for men to create life without the need of a woman and thus emphasize their own power by dispensing with the role of women in politics, finances and society.

As a contestation to the overexploited image of cyborgs in sci-fi narratives, Bud’s death by means of explosive nanomachines (“microscopic explosives known as cookie-cutters detonated in his bloodstream” (37)) is often regarded as the moment of cyberpunk’s demise and the birth of postcyberpunk: “Bud is presented as an archetypical cyberpunk character. [...] Stephenson establishes *The Diamond Age* as a post-cyberpunk book by killing this character early on, while acknowledging the influence of that genre” (“The Diamond Age” 2007: web). Nevertheless, one of the objectives of this dissertation, as noted, is to prove that postcyberpunk not only derives from cyberpunk, but includes its premises all along its narratives. With this, postcyberpunk juxtaposes old dystopian legacies with new settings and technologies, and arises controversies by examining different ontological issues that cyberpunk did not or would not explore. In this manner, although cyborg narratives do not constitute

the central topic of *The Diamond Age*, numerous dystopian figures abound in it (like financial repression or mind invasion), and different characters like Harv or Hackworth himself appear lured or trapped into the lowlife, thus reviving the spirit of cyberpunk in diverse moments.

Harv, Bud's son and Nell's older brother, embodies another facet of the legacy of cyberpunk within *The Diamond Age*, and represents perhaps the clearest example of social determinism and stagnancy. He leads an idling, indolent lifestyle, and stands as an emblem of the skateboard/hacker tradition of Stephenson's previous novel *Snow Crash*. In it, an off-shore floating structure known as 'the Raft' provides the shelter where skateboarders, refuseniks and intrepid hackers dwell. Such a segregative suburb harbors a countercultural movement associated with the rejection of nationalisms; nonetheless, its inhabitants fall prey of repressive opportunists who turn the people into lethargic and determined automata, as Thomas Foster explains:

The only 'ground' for the skateboarders' ethnicity is their boards, not any piece of land. The reference to the skateboarders as an 'oppressed ethnic group' seems intended as a [sic] ironic and depoliticized reference to the plight of refugees, forcibly evicted from the site of their cultural heritage. The equation of skateboarders with such refugee groups (thematized in the novel by a mass migration of 'boat people' called 'the Raft') empties the term 'refugee' of any historical specificity; [...] Skateboarders might also be identified with a downwardly mobile segment of the middle classes, faced with the prospect of either costly professionalization through college education or dead-end jobs in the service industries (2005: 217).

Such a noxious environment resembles the atmosphere where Harv grows and lives. Harv's scarce occupations mirror cyberpunk's outlawed activities; his main occupations are to steal from people (he mugs Hackworth), hacking ("Harv usually came back with [...] an access code for a new ractive" (90)), and partaking in violent 'ratives'. These virtual immersive settings, the ratives, constitute a multipurpose representation that can easily take the shape of recreational live performances (like

interactive theater plays), educative shows or dynamic videogames. The latter extrapolates the skateboard culture of *Snow Crash* in which Harv gets fully involved. These videogames involve a countercultural trend against the oppressive powers of the upper-classes, and transform the ‘ractive’ network into a ground where ideological vengeance occurs. In these simulations, the participants interact with the avatars of hired ‘ractors’ (interactive actors) in peculiar videogames that involve characters who represent the social classes of the cosmopolitan city of Shanghai. Harv makes use of such an unusual setting to develop a seditious and defiant attitude derived from his social resentment against the wealthy strata. Nevertheless, such a subversive posture contrasts with his impassibility and passivity, since it is only his avatar who contests the power of the rich, while his real body remains inactive and attached to a machine that broadens his horizons on the one hand, and keeps him ‘enslaved’ on the other. A classic cyberspace paradox involves a contrast between mental motility and bodily inactivity; this distinction is extrapolated from cyberpunk traditions into postcyberpunk narratives like this one:

“Nell!” he said when he had peeled the goggles away from his eyes. “Sorry, I was chasing some rich Vickys. [... A] bitch is running away and they are chasing her on their chevs, and then Burly Scudd shows up in his big truck and turns the tables and starts chasing them. If you do it right, you can get the Vickys fall into a big pit of manure” [...]
“Sounds entertaining,” Nell said.
[...] “Sorry, forgot you don’t care for my kind of ractive. Don’t they have Burly Scudd in that Primer of yours?” (306).

While for Harv these ractives represent a form of entertainment where he can discharge his discontentment, Nell confronts him with alternative ways of using computer networks as educational resources, as we’ll see later in chapter I.3.3. Like Bud, Harv also epitomizes the spirit of cyberpunk since he is characterized as a rebellious character who grapples against a machine (an allegory of corporate power)

and must then defeat it with lesser tools or by hacking the system. He also embodies the contemporary unresponsive subject who is, on the one hand, overloaded with virtual information and, on the other, a self-indulgent member of a generation who barely stands against the authorities that oppress him. In this manner, he is associated with cyberspace passivity and the underuse of information, since, within such a vast field of knowledge, Harv rather indulges in trivial videogames. This scenario recalls our current status in regard with internet navigation, the big amount of information contained in it and the unresponsiveness of subjects to the socio-political plight of our societies.

Harv, thus, represents a cyberpunk strand that remains active throughout the novel and, thus personifies the antihero archetype, a Gibsonian lethargic figure usually compelled into action by an external agency. Harv's impassivity is later challenged by Nell's liberating educational paradigms and by her lifestyle based on the benefits that, ironically, are brought about by the culture which Harv so intently struggles against and that he hands over to Nell together with the Primer. These educational models shown in *The Diamond Age* as well as the positive behaviors acquired by diverse characters represent an actual proof of the abandonment of cyberpunk's views in favor of the reassessment of different trends of thought such as feminism, ecology, reproduction, education, political consciousness, etc. This stands as evidence of the evolution of cybernetic narratives into new descriptive prototypes such as postcyberpunk, a genre that pays especial attention to the issues cyberpunk overlooked, as Andrew Ross explains:

Cyberpunk's idea of a counterpolitics—youthful male heroes with working-class chips on their shoulders and postmodern biochips in their brains—seems to have little to do with the burgeoning power of the great social movements of our day: feminism, ecology, peace, sexual liberation, and civil rights. Curiously enough, there is virtually no trace of these social movements in this genre's "credible"

dark future, despite the claim by Sterling that cyberpunk futures are "recognizably and painstakingly drawn from the modern condition" (1991: 152).

Harv's role in the novel is limited basically to two points: on the one hand, he remains as the embodiment of cyberpunk and, in this way, he constitutes a figure that confronts the new proposals of the book, and, secondly, he conveys the Primer (the educational e-book stolen from Hackworth) to Nell and looks after her. In this manner Harv plays a double role for her, on the one end, he provides her with a stolen male-designed educational tool (and in this way he embodies a clearly subversive role), and, on the other, he protects her by serving as a street-smart bodyguard (a traditional task in classic cyberpunk). The book supplies a portrayal of Harv as part of a sociological experiment in which equal opportunities are given to similar individuals in identical circumstances and only one of them takes full advantage of those. Thus, *The Diamond Age* explores social determinism in relation with gendered talents, gifts and the abilities of individuals, and examines the degree of maturation of different subjects who are in contact with the same instruments and in analogous circumstances but in dissimilar gender conditions, as we will see in the sections that examine the female characters.

I.1.2 Victorian education and technologies: the imperialist methods to perpetuate power

In *The Diamond Age*, the Anglo-Saxon spheres are divided into Victorians and Neo-Victorians; while the former manufacture high-tech and show a penchant for late 19th century British ethics, the latter manufacture their own assets, seldom use molecular assemblers (Matter Compilers), and live in separate enclaves, leading a more ‘natural’ life. The Victorians stand as the major representative of patriarchy and imperialism, and display a constant concern about education, family and traditions. Lord Alexander Chung-Sik Finkle-McGraw, for instance, the ‘Equity Lord’ of the Victorian phyle, commissions the creation of the Primer for the ‘proper’ education of his granddaughter. In this way, he prompts the revision of the academic systems and shows contempt toward traditional forms of education whose only goal is to render uncritical individuals and not critical leaders: “Lord Alexander Chung-Sik Finkle-McGraw, the embodiment of the Victorian establishment, was a subversive. He was unhappy because his children were not subversives and was horrified at the thought of Elizabeth being raised in the stodgy tradition of her parents. So now he was trying to subvert his own granddaughter” (73). With the new Primer technology he will provide privileged information and alternative education to his descendants, although at the cost of arousing resentment in other neglected phyles since his technology seems to foster ghettoizing and superiority complexes.

In this manner, the Victorians, a classic imperialistic culture and harbinger of corporate ideologies, subsume the culture of their colonies (as the Romans did), accept foreigners who provide benefits to their community (as America and Europe do about immigrants), and show a special concern about education as a Machiavellian scheme to preserve their dominion and cultural supremacy.

As opposed to cyberpunk's depiction of corporate dominance based on a type of economic and cybernetic control that pays no attention to education at all, Stephenson's book describes a struggle about knowledge by presenting a competition between phyles and diverse social classes for the control of culture as a way to retain political authority. As part of the feud between Victorians and Confucians, Hackworth is commissioned to develop the Primer, a contract that may be compared to an indenture between a master and a craftsman, thus confirming the function of intellectuals and creators as cogs of the corporate machine. Hackworth later disrupts the Victorian corporations and 'misappropriates' their educational invention, an action tantamount to penetrating into their financial structure (hence his name, Hack-worth) and which mirrors typical cyberpunk narratives involving hackers that break into corporate databases. A veiled supporter of male power, Hackworth develops research for the Victorians and, in this way, he stands as a collaborator of patriarchy and a class traitor, a proletariat whose intellectual product belongs to the bourgeoisie. Yet, at the same time, Hackworth's subverts patriarchal power and defies Victorian institutions as a means to recuperate what belongs to his own social class. With this, he embodies a classic cyberpunk figure associated with an indolent antihero (like *Neuromancer's* protagonist Case) whose life and actions are propelled by the pressure of the world around him, but who eventually becomes aware of his plight and develops class-consciousness:

I don't exactly know [the missing ingredient needed in schools to foster critical views], Finkle-McGraw had said [to Hackworth], but as a starting-point, I would like you to go home and ponder the meaning of the word *subversive*. Hackworth didn't have to ponder it for long, perhaps because he'd been toying with these ideas so long himself. The seed of this idea had been germinating in his mind for some months now but had not bloomed, for the same reason that none of Hackworth's ideas had ever developed into companies. He lacked an ingredient somewhere, and as he now realized, that ingredient was subversiveness (72, emphasis original).

What characterizes Hackworth as a lethargic figure is his failure to start a company of his own and become a corporate bourgeois leader. His deep-rooted torpor produces a feeling that accumulates within his psyche and which will ignite a subtle rebellion against the monopolies of the Victorians. On the other hand, by fostering the creation of educational technologies, Finkle-McGraw also encourages subversion as the key element to develop critical judgments within his own strict institutions in order to propel them into evolution. In this manner, the Victorian schools are treated as financial consortiums and diverse strategies are devised to prevent them from perishing, using psychological and merchandising mechanisms to buttress their functioning and to preserve their importance within the perpetuation of power. Subversiveness stands as a double-edged stratagem that, on the one hand, stimulates corporate pawns to improve their creative performance but, on the other, jeopardizes the soundness of the institutions they work for by nurturing critical awareness within their subordinates, a large sector prone to rebel against the system. “Finkle-McGraw wants subversives”, Kathleen McClancy marks, “because he wants the innovation they will bring to his tribe, but at the same time he is not afraid that those subversives will go to threaten that tribe because he believes they will see the tribe’s inherent virtue” (2006: 83). Finkle-McGraw’s intention by instilling seditiousness in Hackworth is thus to experiment short-term with him so as to perfect his plan of action before attempting a similar strategy on his own granddaughter in a long-term project.

His concern about the evolution of his ‘phyle’ encompasses an anxious effort that blends the consolidation of sturdy hierarchies, the analysis of educational resources and a conscious scrutiny of history in order to prevent his tribe’s stagnation

and to retain his traditional dominant power. The study of the past also allows Stephenson to pose questions in regard to cultural relativism as he analyzes complex historical phenomena without sympathizing with any ideology. He makes an intelligent rundown on the success and failure of ancient social policies and projects them into a near future in which the different ‘tribes’ are ruled according to these principles. Thus, the confrontation of these opposing policies produces a composite setting in which the different hierarchies and doctrines are questioned, mostly in regard to the evolution or decline of the societies from which these doctrines derive.

Peter Brigg explains:

If one overlooks the witty novelties of the Victorian Age projected into a nanotechnological future, a central theme of *The Diamond Age* is a comparative study of the issue of order versus personal freedom and progress. The paradox is that ordered societies stagnate even as they provide moral and behavioral pattern that frame and direct the lives of their citizens. [...] Stephenson does not finally take sides in this debate. Rather he has devised a fiction that holds the great paradox up to the light of comparative consideration by projecting the past into the future in order to consider the present (1999: 124).

A similar point of view is presented by Orson Welles in *The Third Man*, a film in which he proclaims that societies stagnate under an exaggerated degree of social order and control, since both are regarded as direct responsible for the cultural lethargy of a people: “In Italy, for thirty years under the Borgias they had warfare, terror, murder and bloodshed, but they produced Michelangelo, Leonardo da Vinci and the Renaissance. In Switzerland, they had brotherly love, they had five hundred years of democracy and peace – and what did that produce? The cuckoo clock” (Reed 1949: film). Welles signals warfare and cruelty as important historical tactics not only to preserve hegemony but to stimulate a healthy economy and a creative culture. Finkle-McGraw seems overtly aware of this and justifies his investment on ‘subversive’ education and the rigor of national institutions (including war) as the most useful way

to propel a country (or a tribe) into evolution. Finkle-McGraw combines the use of war methods and weaponry (he has a monopoly on the Feed from which he builds them) with the promotion of creativeness and education as a method to buttress Victorian hierarchies. Nevertheless, he seems aware of the fact that his rivals will develop weaponry at any moment and decisively opts for the use of intellectual abilities to preserve the supremacy of his phyle. Like Finkle-McGraw, historian Francis Fukuyama also recognizes the role of education as a means to safeguard the structures of power by stating that “the nature of these hierarchies [from animal societies to socialism and capitalism] has changed as a result of cultural evolution, from traditional ones based on physical prowess or inherited social status, to modern ones based on cognitive ability or education. But their hierarchical nature remains” (2002: 64). For Fukuyama (as for Alvin Toffler), the struggle between ignorance and modern education plays a determining role in the construction of modern societies either by liberating people from alienating labor and promoting high-skilled jobs or by becoming a negative factor whenever illiteracy and manipulation are used as the oppressing tools of corporate control.

In this regard, whereas cyberpunk focuses on postindustrial structures (cybernetic jobs instead of mechanical ones), identified with a ‘macho’ logic that produces “the subjugation of human being to the control of the machine master – the military leader (or factory owner)” (Cranny-Francis 2005: 104), poscyberpunk focuses on a type of control that has little to do with machinery, militarism or oppressive computer technology. *The Diamond Age*, thus revolves around cyber-education and the integral development of a person as a means to propel a nation into evolution, as it is concluded that “in order to raise a generation of children who can reach their full potential, a way [must be found] to make their lives interesting” (20).

In this manner, Finkle-McGraw aims at creating a new compendium of academic techniques in order to set such a project in motion, not only to educate his own family but his entire phyle: “Finkle-McGraw couldn’t prevent his granddaughter Elizabeth’s parents from sending her to the very schools for which he had lost all respect; he had no right to interfere. [...] But why not give her a gift that would supply the ingredient missing in those schools?” (72).

Finkle-McGraw, a trailblazer conscious of the importance of the balance between tradition and innovation, incarnates the Victorian -actually British- vision that prompts the scrutiny of the past as a way to transform the circumstances of the present, especially in an era of acute technological hegemony such as ‘the Diamond Age’¹³. Yet, as his compatriots from Industrial times, Finkle-McGraw also grows aware of the necessity of developing advanced (militarized) technologies as a strategy to preserve his dominion and, especially, to promote research that will place him ahead of his competitors. The aim of these societies is to perpetuate themselves by means of ultrastability achieved by similar means as those used by long-lasting multinationals, as explained by Mervyn Cadwallader:

That Great Britain has survived through medieval, mercantile, and capitalist periods means that as a national state it has ultrastability. Any industrial corporation, such as International Business Machines or General Electric, that has survived the last fifty, years of social change in the United States has done so through a process of self-transformation and not through the continuation of original organizational (1959: 155).

The main vehicles envisioned by Finkle-McGraw to attain ultrastability are education

¹³ The title of the book itself refers to an era that describes “how the nanotechnology era will be historicized relative to the Stone Age, the Bronze Age, the Silicon Age, etc.,” (Milburn, 2002: 281). In the new era known as the Diamond Age diamonds will be created by means of nanotechnology. The book also acknowledges the influence of nanotech pioneers Drexler and Merkle. Eric Drexler, in his 1986 seminal book *Engines of Creation*, devises the possible future existence of ‘universal assemblers’, tiny machines built atom by atom, whereas Ralph Merkle contributed the concept of self-replication in molecular robotics in diverse publications such as ‘Self replicating systems and molecular manufacturing’. See Merkle 1992.

and a critical view on the possible changes that technology will bring about in the novel. Finkle-McGraw's critical educational methods intend to prevent stagnation and, particularly, to preempt paradoxes such as the absence of creativity in highly informational societies. He also seems aware that innovation and analytical postures constitute the key to stay ahead of his competitors; for them, technological shortage could signify a motivating force toward creativity, whereas the abundance existing in the Victorian spheres is likely to produce stasis. Finkle-McGraw thus pays special interest to his own history, the accuracies and errors of his past, and endorses the use of those ancient methods that facilitate the consolidation of a sound society. For this purpose he examines Victorian models from the 19th century, a period regarded as disciplined and productive, as revealed by the following conversation held with Hackworth:

[Hackworth:] "My life was not without periods of excessive, unreasoning discipline, usually imposed capriciously by those responsible for laxity in the first place. That combined with my historical studies led me, as many others, to the conclusion that there was little in the previous century worthy of emulation, and that we must look to the nineteenth century instead for stable social models"
"Well done, Hackworth! [Said Finkle-McGraw] But you must know that the model to which you allude did not long survive the first Victoria" (20).

In this very regard, he also pays special attention to the power of the technological innovations that played a special role in history, and, in this manner, the novel examines the future through the past. The hypertechnologized setting of the novel generates an apparent historical discontinuity with the 20th century regarded as a failed era. Although the historical facts of this century is what brings about the current socio-political environment, this is regarded as a period in which the discipline and structure created in the previous century is neglected and the rigorous consciousness typical of that era is left aside. The technological setting of the book thus describes an ambience in which the abundance of information increases the attainability of projects but drives away inventiveness and mars the quality of ideas. Thus, the cyclic nature of

history prompts a conscious analysis of the past in order to forestall deleterious phenomena and avoid erstwhile mistakes while taking advantage of successful paradigms:

Against the view of future history as progressive to the point of being discontinuous, one of the book's epigraphs, a quote from Sir Charles Petrie's *The Victorians* (1960), suggests the idea of the swinging pendulum of history, which is history as continuous and repetitive. Because 'moral reforms and deteriorations' are not made by individuals but by broad social forces reacting against previous conditions, there is a middle ground between 'there is nothing new under the sun' and 'everything is up for grabs' (Rubin 2006: 5).

Thus, one of the most insidious difficulties faced by the Victorians of the novel is globalization of culture and capital. The novel's geo-political division involves the presence of 'claves', post-nation states with scattered territories, that evolve from 'burbclaves' and 'franchulates' which constitute the socio-geographic division of Stephenson's previous novel *Snow Crash*. Whereas burbclaves constitute urban shelters for social groups that hold communal traditions, franchulates stand as small nations constructed by discrete corporations, thus underscoring the role of capital in the consolidation of states. In the same guise, the globalizing expansion of the 'claves' and their doctrines in *The Diamond Age* bears a significant connection with the indomitable spread of capitalism described as in term of virus behavior in *Snow Crash*¹⁴. "For post-cyberpunk writer Neal Stephenson," writes Thomas Foster, "it is precisely this globalizing principle, that 'what thrives in ones place will thrive in another', that defines what is most 'virulent' about late capitalism" (2005: 204). The noxious nature of the eponymous Snow Crash virus is extrapolated into *The Diamond Age* as an allegory of the absorbing power of wealth, which generates a paranoid setting in which diverse claves vie for techno-economical supremacy. It is precisely

¹⁴ The plot of *Snow Crash* revolves around a computer virus capable of infecting people. Its function is to contaminate humans with a cultural meme in order to manipulate them by fixing religious archetypes in their psyches.

that type of competition what propels Finkle-McGraw to muse about the intricate relationship of capital, education and technology, and their deep influence on the stability, evolution and perpetuation of his nation-state.

As a result of these preoccupations related to the strengthening of their unusual commonwealth, the Victorians evolve into a type of community identified by Alvin Toffler as ‘the Third Wave’¹⁵, an information society that has left behind the extenuating physical toil of industrial times and promotes instead high-skilled intellectual jobs, white-collar labor and abundant information for the middle classes. In this manner, the Victorians attempt to rid themselves of illiteracy and cultural deficiency, as they grow more dependent on technology. Nevertheless, these types of highly competitive social structures also become prone to what Toffler identifies as a double assault on the nation-state, either from above (commanded by multinationals or cartels) or from below (produced by the loss of consensus or civil disobedience). In this regard Foster observes that “in cyberpunk narratives [...] the nation-state is typically replaced by zaibatsus or transnational corporations and the result is not globalization but the internal fragmentation and balkanization of the nation-state” (2005: 204). Both in *Snow Crash* and *The Diamond Age* the double assault to the nation state identified by Toffler occurs by diverse means. In the former, multinationals build wealth-based communities (franchulates) whereas civil disobedience is what generates anarcho-capitalist states (burbclaves), whereas in the latter the assault from above is devised by cyberterrorists (tribal struggle) and from below by social unrest such as the rebellion of the Fists. Such allegories make us become aware that “[f]or the past few centuries, the world has been neatly divided

¹⁵ Toffler refers to agricultural communities as ‘The First Wave’, industrial societies as ‘The Second Wave’, and information societies as ‘The Third Wave’.

into a set of independent, sovereign nation-states. [...] With the emergence of literally hundreds of multinational or global corporations, this organization of the world into mutually exclusive political entities is now being overlaid by a network of economic institutions” (Brown 1972: 222).

On the other hand, the extrapolations from *Snow Crash* found in *The Diamond Age* regarding these assaults on the state, a cyberpunk facet of the novel, contrast with the new approaches on the use of advanced technologies and education. In *The Diamond Age*, nanotechnology, and especially the diverse computer networks play a significant role in the broadening of awareness of the characters who, at one point, will challenge the socio-political structure of their orbits. In this manner, education constitutes a weapon to attack the state from below, as exemplified by Hackworth and Miranda’s action against the system or the Han Orphan and Fist rebellions, both furthered by the spread of information and learning. Finkle-McGraw, a knowledgeable Machiavellian, becomes aware of such threats by means of his historical studies and decides to anticipate subversive actions before the fall of his empire, although he fails since, at the end of the novel, the Victorian state will be confronted and a new order will be engendered through the globalizing effects of widespread education and of informatics. In this respect, *The Diamond Age* stands as a clear example of how information plays a paradoxical double role, on the one hand, securing the nation’s stability and, on the other, undermining the solidity of political institutions. These types of Tofflerian environments reveal the power of post-industrial societies to topple political monolithic institutions and their flimsiness when confronted by informed, educated and aware communities. Thus, the evolution of societies is unquestionably influenced by a mixture of corporate control, ethics, subversion and information, as suggested separately by both Stephenson and Toffler:

In sum, therefore, at every level, from economics and politics to organization and ideology, we are witnessing a devastating attack, from within and without, on that pillar of Second Wave civilization: the nation-state. (325) [...] The Third Wave also raises non-economic and non-technological concerns to primary importance. It makes us look at education, for example, with fresh eyes. Education, everyone agrees, is central to development. (346) [...] For Third Wave civilization, the most basic raw material of all—and one that can never be exhausted—is information, including imagination (Toffler 1981: 351).

Finkle-McGraw, while pursuing an informational revolution, proposes the creation of new cultural paradigms that will render critical postures derived from the conscious processing of data and information. Traditional knowledge will be transformed into a new set of values (including skills and expertise) that propels evolution by internalizing information through diverse empirical methods. In this way, *The Diamond Age* endorses the fact that “cognitive structures...are internalized, ‘embodied’ social structures,” (Bourdieu, 1987: 468). According to Toffler’s Third Wave postulates, the cognitive revolution headed by Finkle-McGraw will unintentionally bring about equality of opportunity and a high social mobility through formal education, which, in a way, occurs in the novel. Nevertheless, opposing postindustrial optimistic thought, Pierre Bordieu identifies knowlegde as the means for the upper social strata to preserve their privileges and their cultural taste across generations, under a new label for capitalism known as ‘cultural capital’:

Hidden behind the statistical relationship between educational capital or social origin and this or that type of knowledge or way of applying it, there are relationships between groups maintaining different and even antagonistic, relations to culture, depending on the conditions in which they acquired their cultural capital and the markets in which they can derive most profit from it (Bourdieu, 1987: 12).

The aporias presented in the field of education constitute the relativistic vision of *The Diamond Age*. Whereas on the one hand it is implied that education will bring about equality, on the other, it is clear that the elites cling to culture and education as

weapons against competition. The postindustrial society depicted in the novel fails to provide an equal opportunity in the fields of culture and education to different classes. On the contrary, the book portrays a setting in which social determinism and technological control overwhelms the access to free information. “Perhaps the most noteworthy instance of this tendency [people’s creativity] in *Diamond Age*,” Rubin asserts, “is the fact that inequality and poverty still exist despite nanotechnology’s potential to end scarcity. [...] Second, nanotechnology develops for commercial reasons, [...] since] conflict and competition remain potent forces that shape the need for and possibility of perpetuation. (2006: 8-12)

In this sense, the book seems to endorse the idea that each social class (as Bourdieu claims) opts for a specific type of culture or aesthetics, whether they are Harv’s enthusiasm for subversive videogames or Bud’s animalistic stance suggested by his hypersexual bodily implants. Finkle-McGraw is rather associated with a more refined posture proportional to his status, and instead promotes education and thought-provoking academic methods. Furthermore, he is capable of distinguishing the level of awareness associated to each socio-cultural circle: “Finkle-McGraw began to develop an opinion that was to shape his political views in later years, namely, that while people were not *genetically* different, they were *culturally* as different as they could possibly be, and that some cultures were simply better than others” (17, italics in original). Such a seemingly haughty and conceited vision could be interpreted as an allegory of the Anglo-Saxon posture that acknowledges the different cultural evolution of the peoples, or even as superiority complexes like the German purism in the mid 20th century, a criticism of the novel to the erroneous thought that a high technological evolution also indicates a high cultural progress.

Finkle-McGraw thus regards education as a synonym for ‘cultural capital’, as described by Bourdieu¹⁶, a type of wealth that relates not to currency, but to the value of specialized knowledge held by non-wealthy, but highly educated families such as Hackworth’s. The book then shows the intricate relationship between education, the spread of capitalistic ideologies and high technology. The tribal division depicted in the novel favors indoctrination by disseminating ready-made morals, values and ethics, all of which constitute the basis of social determinism. As predicted by Bourdieu, the propagandistic apparatus and the social determinism, both generated by the prevailing social order, ironically contrast with the expectation of opportunities that these pseudo-egalitarian, hyper-technologized societies were meant to provide. “In [...] *The Diamond Age*,” Tim Oakes explains, “Neal Stephenson envisions a post-nation-state world [...] where modernist notions of progress and development through linear time have been replaced by cultural differentiation across space: history has been conquered by geography. History has become more than a resource for borrowed cultural traits that are mapped onto discrete territories, and *identity* is self-consciously constructed by *adopting the ready-made form of a particular cultural group*” (2000: 668, my emphasis).

The spread of such prêt-à-porter ideologies associated with specific social circles resembles the cultural infection produced by the eponymous virus of *Snow Crash*. Nevertheless, in *The Diamond Age* the penetrating power of capitalist ideologies is not disseminated by a computer virus but, rather, by nanotechnology. The uses of nanotechnology then range from health care to biopolitics and mind

¹⁶ Bourdieu extends the concept of ‘capital’ into at least three categories: social capital (productivity as in relation to social networks), cultural capital (involving educational, social, and intellectual knowledge in the hands of not necessarily wealthy families) and symbolic capital (associated with social prestige, recognition, honor and authoritative embodiment). See Bourdieu 1987.

control. In *The Diamond*, nanotechnology is responsible for the propagation of capitalistic ideologies, consumerism, tribal ethics and biopolitics:

The second [pole...] focused on the species body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary. Their supervision was effected through an entire series of interventions and *regulatory controls: a biopolitics of the population*. The disciplines of the body and the regulations of the populations constituted the two poles around which the organization of power over life was deployed (Foucault 1978: 139, emphasis original).

The dissemination of ideologies by means of technology is not new in sf narratives; military doctrines, for example, the main instrument of capitalism, makes use of state-of-the-art implements to prop their doctrines and subdue dissidents. In other words, “SF is that species of storytelling”, Damien Broderick observes, “native to a culture undergoing the epistemic changes implicated in the rise and supercession of technical-industrial modes of production, distribution, consumption and disposal” (1995: 155). In this regard, nanotech is treated as both a set of beneficial technologies and a deleterious presence that conveys the ideology of the Victorians and of other groups as well.

Ubiquitous nano-machines break through the city’s nooks and crannies playing different roles such as civil surveillance, military defense, warfare, inoculation, spyware, information carriers, and, of course, as molecular assemblers capable of forging food, clothes and medicine. The nano-devices described in the novel present the ability to develop intelligence and exchange data, as revealed by a dialogue between Harv and Nell: “See, there’s mites [nano-robots] around, all the time. They use the sparkles to talk to each other. [...] They are in the air, in the food, in the water, everywhere.” (53) Nano-sites, intelligent self-sufficient particles, represent a carbon copy of the world they were bred in; they are programmed to serve

specific roles in the guise of soldiers or factory workers, and, thus, they mirror and expose the social determinism that forms part of mechanized societies. Examples abound:

We engineered a hunter-killer that would seek out and destroy the nanosites in your brain. [...] Another possible explanation for the chills was that Dr. X's nanosites were seeking out and destroying the ones that H.M. Joint Forces had put in there, waging a turf war inside his body, and his immune system was doing overtime trying to pick up the carnage (193).

The militarized nature of these machines (“hunter-killer”, “seeking out and destroying”, “waging a turf war”) give them the shape of extremely resilient fighters that can only be remodeled or defeated by other similar entities, leading to clashes and turmoils that allegorize human scuffles for power. They are organized in highly specialized hierarchies and play roles in particular joint homeostatic labors, all of which stands as a reflection of the functioning of societies and constitutes a fractal simulation of human interaction. The rules and aggravations existing among humans are mimicked by these complex nano populations; social observances are transferred onto these particles, including military stratagems, political decisions and individual behavior, as Harv explains to Nell:

But there are people who break the rules sometimes. Who don't follow the protocols. And I guess if there's too many mites in the air all breaking down inside your lungs, millions—well maybe those safe pieces aren't so safe if there's millions. But anyways, the guys at the Flea Circus say that sometimes the mites go to war with each other. Like maybe someone in Shanghai makes a mite that doesn't follow the protocol, and gets his matter compiler to making a whole lot of them, and sends them all across the water to New Atlantis Clave to snoop on the Vickys—one of their Protocol Enforcement guys—makes a mite to go out and find that mite and kill it, and they get into a war (54).

In *The Diamond Age*, computers, military machinery and nanotechnology constitute the primary instruments to reinforce the power of capital; nevertheless, the invisible force of nano-technology surpasses the ability of any machine to convey patriarchal

ideologies and manipulate mass behavior. Like digital currency, a type of capital that no one can see or hold, nanotechnology, an imperceptible but influencing force, is also used to govern and exploit the social domain by means of foisting doctrines, a technique to take command of the social by manipulating the minuscule and what Bachelard identifies as one of the preeminent methods of dominion: “the cleverer I am at miniaturizing the world, the better I possess it” (1994: 40).

In a similar manner, Baudrillard examines how miniatures are capable of deception and counterfeit, pinpointing the role of simulations in social manipulation. He identifies Disneyland, for instance, as a minuscule model and a misleading simulation that exposes the structure of globalization as a set of intertwined ideologies from diverse societies or nations. The ethos and doctrines from specific regions or social groups are linked to a particular geographical sector of the entire miniaturized urban landscape; every minuscule geographical area in Disneyland carries a great deal of ideological burden. Disneyland thus becomes a scale model that conjoins the deportment of a myriad of cultures in one single diorama that stands as a fractal copy of the real, a replica that is taken for the actual: “Disneyland is a perfect model of all the entangled orders of simulacra. It is first of all a play of illusions and phantasms: the Pirates, the Frontier, the Future World, etc.” (1994: 12). Disneyland, a playground designed for the exploration and explanation the real world, ‘a small world after all’, provides the scope for a miniaturized study of societies (at least in a childish level). Similarly, in the hypertechnologized setting of *The Diamond Age*, the small-scale analysis of complex social phenomena is dictated by nanotechnology, an ambit that works not only as a pervading force (in either beneficial or detrimental ways) but as a model to be examined as substitute of the world itself , a moving diorama staged by nanotechnology.

In this respect, different authors have also made use of nanotechnology to explain diverse social phenomena such as doctrines, behaviors and movements. The first proposal, after the incipient attempts of Robert Heinlein and Philip K. Dick, was perhaps Greg Bear's 1985 novel *Blood Music*, in which "just as nanomachines can assemble virtually anything from the common atoms that compose all matter, they might also be capable of disassembling all matter (humans included) and utilizing the atoms to replicate themselves" (Miksaneck 2001: 59). These tiny molecules and nanobots perform as "little engineers. The world's tiniest machines. Better than MABs! (Medically Applicable Biochips). Little surgeons. War with tumors [...] 'Noocytes.', from the Greek word for mind, 'noos'" (Bear, 1985: 45). Nanomachines, in Bear's novel, besides resembling an entire society, describe the body as a social compound in which war is waged. They also rebel and acquire consciousness, and provoke the debacle of the host body that contains them, an overt allegory of the technologies that subvert man's command, run amok and attempt to destroy their own creator. *Blood Music* contains one of the first examples of the 'grey goo', a hypothetical end-of-the-world setting that involves out-of-control self-replicating nanobots that can obliterate mankind and culture themselves. Later on, Bear also approaches nanotechnology as a psychoanalytical tool in *Queen of Angels*, as we'll see in Chapter III.

Kathleen Ann Gonnann's 1994 novel *Queen City Jazz* introduces "[a] nanoplague [that] can sweep across the country on the wind. [...] There are uncountable clever ways for them [nano-bots] to get into your body" (Goonan: 1994: 31). The novel includes a postapocalyptic setting in which nanotechnology grows again out of control and provokes the uncontrollable destruction of culture, thus characterizing this technology as disastrous and ravenous. In a similar way, in Richard

Calder's 1992 book *Dead Girls* nanotechnology transforms London into a ghetto and women into uncontrollable sex-dolls with no free will, while post-nations find themselves among ungovernable circumstances: "As a sop to the European parliament the Thai government had proscribed environmental nanoware [...] Europe had outlawed all nanoware at the outbreak of the doll-plague; it only affected the poor (the kingdom's rich lived in high-rise air-filtered condos); and left untouched the huge underground nanoindustry upon which much of Bangkok's wealth was based." (1992: 51). In Calder's novel, as well as in *Blood Music* and *Queen of Angels*, sexually-laden nanotechnology spars with diverse types of hierarchies, a topic that I will analyze in the ensuing sections of this chapter.

Linda Nagata also provides new perspectives on nanotech narratives by exploring nano-control on human emotions, genetic modifications and even new applications in cyberspace navigation: "Nagata imagines a further enhancement of Gibsonian cyberspace technology: thanks to nanotech miniaturization, humans can now send replicas of themselves through cyberspace [...]. And like *The Diamond Age*, [her novel] *The Bohr Maker* is concerned with the struggles between a wealthy first world [...] attempting to control nanotechnology, and a third world still enveloped in poverty" (Johnston 2001: 235). In *The Bohr Maker* (1995), paranoid control and patriarchal hierarchies are also presented struggling with the wide range of benefits that nanotechnology can supply. Like cyborg technologies in the case of Bud are laden with militarized and patriarchal ideologies, nanotechnology is filled with financial and power-related doctrines, and plays an important role in the hunt for underground rebels by the high-tech scouts of governmental agencies and corporations. Since in this novel, emotions and the physiques of are controlled by nanotech, identity is also studied from the point of view of the minuscule. This

constitutes an analysis of the non-physical by examining the material, a nano-simulation that resembles that of *The Diamond Age*, since, as Colin Milburn asserts, “nanotech respects no unitary construct above the atom and reduces everything to pure materiality, demolishing metaphysical categories of identity” (2002: 287).

In this respect, Milburn also signals the resistance of nanonarratives to depict traditional humanist interpretations of identity by repeatedly construing a future world in which the body appears unbalanced by the wide-range influence of nanomechanisms. “I argue,” he says, “that nanotechnology participates in the technode(con)struction of humanism, forcing us to think otherwise through its ambiguous hyperreal status and its narratives of corporeal reconfiguration from beyond the temporal horizon, fabricating new fields of embodiment and facilitating our becoming posthuman” (2002: 286). Instead of becoming cyborgs, in *The Diamond Age*, nanotechnology turns people into biopoliticized posthumans (augmented humans), yet not only with the ‘unbalancing’ intention pointed out by Milburn, but with a double-edged purpose, on the one hand, ameliorating the human condition, health and societal homeostasis and on the other, the self preservation of monopolies and patriarchal tactics. As we’ll see in the following sections, nanotech infects the human body and mind with political propaganda, and thus, makes us regard “posthuman bodies in nanonarratives [as] never stable, never idealized, never normative, never confined” (Milburn 2002: 287).

As regards this, the fractal nature of nanotechnology in Stephenson’s book is also related to a series of computer networks that branch out either as bifurcations or rhizomes. The grids described in the novel involve nanotech in different extents, either as molecular assemblers or as organic wetwares in which nano-particles flow and convey information. The inner structure of social bodies is then copied into

‘living’ microscopic grids in which nano-machines exchange data in a small-scale, and form connections between themselves that will influence the macroscopic domain as well. In the novel, nano-machines assemble intelligent yet blindly programmed societies that constitute an intricate neural-like mesh. This establishes a vast panorama that projects connotations of power, dominance and paranoia, whereas, on the other hand, it also promotes welfare and positive biopolitics. In this regard Miksanek explains:

Surrounded by and immersed within technological brilliance, the inhabitants of *The Diamond Age* nevertheless often appear a bit dimmed by paranoia, inhumanity, and spiritual lethargy. [...] These machines function like intelligent units of information forming a worldwide network of communication by mating with other nanomachines [...]. Global communication and networking take on a whole new meaning by the conclusion of this novel (2001: 61-62).

As we see, by presenting both the beneficial and the deleterious nature of nanotech, the novel refuses to take sides or to demonize these inventions. By employing nanotechnology, different political authorities divide their attention between the provision of general prosperity and the preservation of their own power and wealth. Such a composite phenomenon prompts us to coin a new term that comprises the profitable connotations and the advantages of nanotechnology as applied to the social, nanobiopolitics, a set of policies that will not only enhance the nature of human communities, but which will involve the modification of the human, the birth of a true posthumanism based on the modification of the interior (including the mind) and not only the exterior, as it was once the aim of cyborg technologies.

I.1.3 The Confucian world: the Eastern contributions to Western technological mores

The Chinese spheres of the novel comprise a variety of characters whose ideology represents a postmodern upgrading of Confucian precepts. Perhaps the most influential among them is Dr. X, a freethinking philanthropist with an ambiguous, puzzling personality whose dishonorable status at the beginning of the novel (“Dr. X was the ideal man for this [hacking] job because of his very disreputability” (68)) mutates into that of a humanitarian and altruistic trailblazer. As the embodiment of the cultural relativism typical of the novel, he is all at once a benefactor and a manipulator (he controls the Drummers, for instance), while his social reforms and public programs involve both profits and disadvantages for his people. He is a canny, sagacious hacker and leader whose role is to take over underdeveloped projects and fully exploit them, as opposed to Hackworth, a scientist who rather creates new technologies from scratch:

Hackworth was a forger, Dr. X was a honer. The distinction was at least as old as the digital computer. Forgers created a new technology and then forged on to the next project, having explored only the outlines of its potential. Honers got less respect because they appeared to sit still technologically, playing around with systems that were no longer start, hacking them for all they were worth, getting them to do things the forgers had never envisioned (68).

The relationship between honers and forgers illustrates the homeostatic coexistence of complementary forces that constitute classic interactive symbioses. Furthermore, their correlation makes reference to the post WWII technological and financial encounter of the West and the East (where the former can be associated with the ‘forgers’ or creators of technology, and the latter with the ‘honers’ or improvers of those technologies). This symbiotic association makes reference to the entire Far East

economic miracle and not only to Japan *wirtschaftswunder*¹⁷. In this sense, ‘honing’, the recouping of neglected projects once regarded as non-profitable, is associated to the Far East (represented by China, in this case) in that these nations are regarded as ‘johnny-come-lately’ fierce competitors of western consortiums who adopt, improve and optimize most of the original inventions of the occidental nations. In this way, while the west is identified with creativeness, the east is linked to improving and perfecting.

On the other hand, whereas the Victorians are presented as individuals with a specified personality, the Chinese tend to be described in terms of ‘masses’. The colossal bodies of people depicted as one single organism, the Han orphans, the Drummers, the Mouse Army and the Fists Army, are all related to Chinese throngs, composite entities with no defined traits and with no outstanding members. The interest of the Chinese in these massive compounds contrasts with the individualistic vision of Finkle-McGraw or Hackworth, whose focus is on personal goals or on particular members of their kin.

¹⁷ After WWII Germany and Austria were coerced into giving up their patents and inventions in order to pay for some of their external debt: “The Bendix Company in South Bend, Indiana, writes for a German patent on the record player changer with records stacked above the turntable. Pillsbury Mills wants to have what is available on German flour and bread production methods. Kendall Manufacturing Company (Soapine) wants insect repellent compounds. Pioneer Hi-Bred Corn Company, Iowa, asks about interrogation of research workers at the agricultural high school at Hohenheim. Pacific Mills requests I. G. Farbenindustrie’s water-repellent, crease-resistant finish for spun rayon. The Polaroid Company would like something on the status of exploitation of photography and optics in Germany. (There are, incidentally, ten to twenty thousand German patents yet to be screened.)” (Walker, 1946: 8). Conversely, Japan improved western technologies and made them their own, concentrating on planning, production and exports in order to revitalize their country after defeat. Examples of this were Toyota’s exports to Korea during its 1950’s war, which saved it from bankruptcy. A similar phenomenon occurred to Japan’s entire electronic industry. Nowadays, China has also achieved a *wirtschaftswunder* by means of perfecting western patents and by creating their own after designs from those copied from the west.

In this respect, Dr. X's hacking undertaking is, in the beginning of the novel, associated with his despicability ("his very disreputability"), although, with the time, he will become a mass philanthropist who will produce immense public benefits and, at the same time, a series of atrocious *raisons d'état* such as the mesmerizing and 'enslaving' of the Drummers, an apparent mean action that is expected to render ineffable profits in the long run. His ambivalent decisions resemble the difficulties faced by Eastern nascent nations in the mid 20th century (such as China and the southeast Asian nations) concerning the provision of education and progress to overpopulated societies by means of obliterating the individual's personality or by imposing impersonal educational and social programs to the masses.

In this regard, unlike the cyberpunk narratives of the 80s, *The Diamond Age* examines the characteristics, problems and behaviors of massive bodies and hive societies. As mentioned in the previous section, nano-machines reproduce and communicate in a neural manner, forming composite networks that resemble social hierarchies. Yet, the complexity displayed by the massive entities associated with the Chinese world stand as an example of how Stephenson's novel contrasts with cyberpunk works. Whereas in cyberpunk "the focus is on the individual – perhaps a romanticized version of the lone resistance fighter – who battles against the dominating corporations and their representations in cyberspace" (Heuser 2003: 37), Stephenson's posture steps away from Cartesian antipodes identified with oxymoronic motifs such as 'virtual reality' or 'high-tech vs. low-life'. His view describes a hive-like complexity related to fractal representations of the social (by means nanotechnology, for instance). Stephenson thus complements cyberpunk's simplistic

perspectives permeated with rage, solipsism¹⁸ and oppression by juxtaposing those with a set of solutions, models and paradigms that intend to put an end to those conflicts.

In this way, Dr. X, albeit not an overt communist, stands as an altruist egalitarian who searches for the Seed (the democratized version of the Feed) and pursues communal welfare for his people by means of ambiguous methods. His reasons-of-state prioritize socialized strategies for over lesser interests such as personal autonomy and, with this, he flouts the Golden Rule of Confucian philosophy¹⁹ by alienating and manipulating people such as the Drummers whom he turns into cannon fodder for his ambitions. Through these ambivalent mechanisms, Dr. X becomes aware of the importance of the allocation of specialized roles to the citizens, and differentiates between intellectual tasks (superstructure) such as Hackworth's, and automated labor (infrastructure) such as the performance of the Drummers or the Han orphan army.

Thus, as Dr. X attempts to provide the orphan girls with shelter and an education in order to deliver them from street life, he, matter-of-factly, forms an undifferentiated mass of anonymous females. Later, they become the infantry of a rebellious gargantuan army commanded by a Victorian leader (Nell). Such a disparity exposes a patriarchal scheme that endorses white supremacy in which an Anglo-Saxon commander is supplied with an outstanding personality and intelligence whereas the faceless body of Chinese soldiers is limited to following orders. In this

¹⁸ As shown in chapter II of this thesis, solipsism also represents one of the main avenues explored by Egan in *Permutation City*.

¹⁹ Confucius said: "Never impose on others what you would not choose for yourself". Analects XV, 24.

regard, Kathleen McClancy distinguishes the role of Victorian leaders like Nell from the robot-like demeanor of the nameless Chinese community:

Whereas Nell's copy of the Primer [...] makes the reader feel special, singled out, and unique, [...] the Mouse Army's copies teach their readers that they are [...] one unit in an undifferentiated mass of beings, which alone can effect almost no change, but which, working together can take over the world. Rather than creating subversives, these Primers have created soldiers, a mass of female Chinese subservient to Nell. [...] Not one of the 333,000 prepubescent Chinese girls who empower Nell as their leader is ever named or even tasked with anything other than physical labor (2006: 89).

Conversely, by means of these descriptions, the Chinese cultures are also positively linked to a prolific collective labor, to neural networking and to the culture of collectivity whose emblem is the Roman fasces. Thus, the Far East's modern systems of production are related to massive functioning and cooperative behaviors and, although, these peoples are depicted as alienated machinery components rather than as individualistic characters like the Anglo-Saxons, their focus is on immense social projects derived from collective performance. The Chinese thus represent a mass system of production where personality is sacrificed in favor of the communal.

Another narrative line in *The Diamond Age* also describes the power of social massive accretion: the Chinese peasants. Their long-established means of production represent a cultural and economic problem for the evolution of Chinese society. The peasants are, once more, described as a massive accretion, a single cultural body whose traditions contrast with the new hypertechnologized means of production introduced by the westerners. Their customary means of production are challenged by the presence of urbanized technologies such as the Matter Compiler whose ideological and political overtones combine the influence of nanotechnology (a byproduct of the encroaching colonial/imperialistic Western philosophies) with urban lifestyles, clash with the 'rustic' spiritual credos of eastern peoples, and threaten to

eradicate the need for peasants and their labor as part of a balanced economical system:

Dr. X said [to Hackworth...] “*Yong* is the outer manifestation of something. *Ti* is the underlying essence. Technology is a *yong* associated with a particular *ti* that is Western, and completely alien to us. For centuries, since the Opium Wars, we have struggled to absorb the *yong* of technology without importing the Western *ti* [... and] we could not open our lives to Western technology without taking the Western ideas. [...] The result has been centuries of chaos. We ask you to end that by giving as the Seed. [...] Rice was the basis for our society. Peasants planted the seeds and had highest status in the Confucian hierarchy. [...] When the Feed came in from Atlantis, from Nippon, we no longer had to plant, because rice now came from the matter compiler. [...] But under the Western *ti*, wealth comes not from virtue but from cleverness. So the filial relationships became deranged. Chaos” (432).

The Seed then manifests itself as the counterpart of the Western ideologies embodied by nanotechnology. Such a cutting-edge technology attempts to conflate the democratized lifestyle of the Chinese (associated with anonymity and featurelessness) and the evolutive spirit of Victorian capitalism (linked to personal aspirations). In this sense, the nanoparticles turn into meme-carriers and epitomize a techno-ideological system that disseminates the underlying essence of Western culture itself and which seeks to reorganize the Chinese social-cultural structures from the bottom up (emergence). By this, nanotechnology attempts to reconfigure the historical catastrophic encounter of the East with the West, a disastrous clash only comparable with the discovery of America, as explained by Todorov²⁰. Likewise, the issues concerning the confrontation of eastern traditions and modern technology have been a constant preoccupation of eastern narratives as evidenced in films such as Kobayashi’s *Seppuku* (1962) and Kurosawa’s *Yojimbo* (1961), both of which depict

²⁰ Todorov signals “the discovery of America, or of the Americans, [as] certainly the most astonishing encounter of our history. We do not have the same sense of radical difference in the ‘discovery’ of other continents and of other peoples: Europeans have never been altogether ignorant of the existence of Africa, India or China; some memory of these places was always there already—from the beginning” (1984: 4).

traditional samurais that undergo lethal encounters with western technologies, and who, as a result, see their customary practices and lineages obliterated. Dr. X, like these Japanese filmmakers and conscious of these ‘modern’ problems, attempts to establish a series of measures that will propel his people into evolution without neglecting the elements that constitute national identity. Dr. X intends to use nanotechnology as the solution to this precarious situation, since these technologies are capable of reorganizing entire systems by ordering them from the bottom up. With this, he secures the evolution and subsistence of his tribe without losing the sense of tradition.

The Diamond Age, Kathleen McClancy explains, “focuses on two societies and corresponding characters who have embraced the technology of the future (nanotechnology) as well as a cultural past. New Atlantis adheres to the nineteenth-century clothing and customs of Great Britain, while the ‘Han Celestial Kingdom’ promotes fifth-century Confucian philosophical teachings” (2006: 79). By exploring such a multicultural clash, Stephenson also exposes a clichéd prejudice which identifies the Chinese as opposite or reluctant to Western ideologies and technologies, as revealed by Kobayashi’s and Kurosawa’s films, when, in reality, a wide variety of modern western inventions, the corpus of occidental capitalism, spring from Chinese inventions such as the printing press, gunpowder, fireworks, animal cross-breeding, plant grafting, culinary innovations and the compass²¹. Nevertheless, the novel proposes the amelioration of the ‘Eastern problem’ by discerning, on the one hand, the spiritual traits of materials and, on the other hand, the materialistic side of virtue. By this, the book describes a correlation of the spiritual with oriental cultures and the

²¹ Francis Bacon in 1620 wrote: "Printing, gunpowder and the compass [...] whence have followed innumerable changes, in so much that no empire, no sect, no star seems to have exerted greater power and influence in human affairs than these mechanical discoveries." ([1620] 1863: CXXIX)

material with western capitalism, of which the latter appears linked to cleverness, craftiness and slyness.

These opposing forces are reconciled by means of scientific advances, since the role of nanotechnology is also to probe deeper and deeper into the minuscule components of matter in order to scrutinize their functioning and, subsequently, mingle them in a whole new pattern that will render benefits for diverse societies. Science, taken as a visual discipline, regards the sensorium as its most important instrument and, in *The Diamond* it is believed that hard science and nanotechnology, if provided with the proper data, will solve the problem of the ‘cultural other’ by imposing a material and ideological order onto a cataclysmic encounter of ‘opposing’ views.

As a result, the feud between colonized (Confucians) and colonizers (Victorians) does not revolve around the possession of land and/or natural resources, but around technology and education as the primary means to prop wealth and power. In this sense, nanotechnology and molecular assemblers become the quintessence of a geo-political revolution that has given birth to new nations united by communal ideologies rather than by the possession of land or natural resources. Matter Compilers are capable of revamping molecules into diverse objects and, with this, raw materials are relegated to a second plane within the capitalistic framework of the novel: “Machines known as matter compilers, which can create anything imaginable using individual atoms, have made the need for nations to control areas rich in natural resources obsolete; as a result, nation-states are no longer bounded geographically but ideologically” (McClancy 2006: 74).

In this respect, Matter Compilers, machines regarded as “irreverent upstart god[s]” (Haraway 1991: 153, already cited), constitute a denaturalizing invention that desperately needs the earth-bound spirit of the Han peasants. Matter Compilers, on the one hand, attempt to liberate the Victorians from the consumeristic conventions of their world by nullifying corporate dominion, but, on the other, constitute an illusion of comfort and a hyperbolic technique to blight nature. The idea that through these machines “all is made better” (38) reflects a set of technophiliac fantasies related to the imposition of capitalist tenets onto globalized modern cultures. The artificial products obtained from these machines, mere synthetic ‘mirages’, stand as a surrogate of the real and attempt to be superior to the originals or to nature itself, although they might lack the ‘aura’, the mystic qualities of an object that only appear with ‘remoteness’, when the object is absent and the subject can ponder about its material and spiritual benefits, as explained by Walter Benjamin in regard to the loss of traditional values in the work of art:

That which withers in the age of *mechanical reproduction* is the aura of the work of art. By making many reproductions it substitutes a plurality of copies for a unique existence. [...] We define the aura of the latter as the unique phenomenon of a distance, however close it may be, [...] the technique of reproduction [that] detaches the reproduced object from the domain of tradition. [...] These two processes lead to a tremendous shattering of tradition which is the obverse of the contemporary crisis and renewal of mankind (Benjamin 1998: II, III, my emphasis).

Matter compilers bring about a commodity revolution that obliterates any possibility of accessing the original, demeaning the true spiritual power and purpose of technological objects, once indispensable elements for the preservation of humankind, now turned into low-grade items after being deprived of their aura. Stephenson thus calls for the re-union of both views, the naturalistic and the technophiliac, as a quasi-religious procedure (*‘religere’*, to reconnect, bind) that seeks to blend the evolutive

tendencies of the Victorians and the traditional stances of the Confucians. For this, he introduces other interestingly complex characters that epitomize the attempts to reconcile eastern and western traditions and ideologies, and who succeed in developing a buoyant personality that stands out from the massive societies associated with the Chinese world. Of these characters, perhaps the most significant due to his heterogeneous nature is Chinese mandarin Judge Fang.

Fang stands as a direct reference of Judge Dee, the prodigious protagonist of two different series of books, the XVII century Chinese detective novel *Celebrated Cases of Judge Dee*, and Robert Van Gulik's series of novels about the same character (1949-1968). Judge Dee is famous for solving three cases at a time in different locations, whereas Judge Fang embodies the ideal Chinese 'Junzi' (a noble man by virtue rather than by lineage) who performs a variety of roles all at once, thus embodying the supreme image of a cultivated man, a Neo-Confucian way of life, as this fragment of a speech given to Dr. X indicates:

“Even though the Chinese Coastal Republic is no longer strictly or even vaguely Confucian, we still run our judicial system that way –we've had it for a few thousand years, and we think it's not half bad. The general idea is that as judge, I actually perform several roles at once: detective, judge, jury, and if need be, executioner” (43).

Fang makes a number of critical decisions that alter the plot in contradictory manners, and with this, he buttresses the sense of cultural relativism typical of *The Diamond Age*. He judges and condemns Bud to death, for instance, a pertinent decision that, on the other hand, will spark a situation in which Nell will be sexually abused and isolated. Nevertheless, in another reversal of fortune and as compensation, he will allow her to keep the stolen Primer, a resolution that will push her even deeper into a social and institutional entanglement of which he becomes entirely conscious: “I fear

that I have enmeshed that little girl in a much deeper business than I ever imagined.” (103) In addition to Nell’s storyline and with the aid of his two assistants (Miss Pao and Chang), Fang unravels the intentions and procedures of CrypNet, a surreptitious multiracial hive organization that infiltrates spies in every phyle in order to undermine Victorian dominion. Moreover, he deciphers the mysteries related to the Han ‘orphan’ girls and discovers that, unlike what was thought, they were not being retained by organ traffickers but were actually abandoned by their own families, scared by overpopulation²².

A postmodern upgrade of Judge Dee, Judge Fang is described as a supporter of the use of nano truth-drugs and other techniques in his investigations (e.g. tickling and cane strokes as torture); he was “raised on Cheerios, burgers and, jumbo burritos” (115) and consumes KFC chicken while working, all of which is responsible for his unusual height (almost two meters tall). In this way, Fang constitutes a symbol of the modern multi-cultured oriental world he stands for and represents the ‘beneficial’ and unavoidable encounter of the East and West evidenced by his bilingual proficiency, as his command of Chinese and English reveals. On that account, the fact that he usually prefers the latter stands as an allegory of the pervasion of the Anglo-Saxon into Confucian culture and the institution of English as lingua franca, a fact that epitomizes globalization and symbolizes the optimization of commerce by means of improving the methods of communication.

Judge Fang also discovers Dr. X’s intentions regarding to the Primer and the orphan girls, and the role of interactive education in the generation of historical

²² In 1995 Radio y Televisión Española broadcasted a documentary entitled *Las Habitaciones de la Muerte* produced by British Channel Four, showing the precarious conditions of Chinese orphanages overcrowded with abandoned babies whose parents could not cope with overpopulation regulations. As a result of that, countless families in Spain and other countries adopted a large number of Chinese orphans, especially female.

consciousness among the Han people. As the impending Fists rebellion is concocted, the Han orphans, raised by the Primer, will form a seditious army that will challenge Victorian domination, all of which stands as a strong attack to Western patriarchy by means educative methods and the distribution of information, including warfare expertise and organizational methods. Thus, the diverse procedures utilized by the Victorians to oppress their rivals, a methodic education and warfare techniques, turn out to be the same elements used by the Chinese against them.

As the stout source of Confucian justice, Fang also punishes Harv for his petty crimes, sentences Bud to death and helps improve the orphans' conditions. Nevertheless, Judge Fang's multifaceted personality represents the typified, idealized figure that contributes to enhancing the value of patriarchy, since he is a male leader who uses his high rank and authority to control a variety of social circles that ranges from individuals to corporations and hive organizations and who, by exerting 'justice', inevitably buttresses the sense of patriarchal authority. Consequently, Fang's multiple skills and virtues make him prone to building a 'cult of personality' which contributes to the preservation of authoritarianism since he is more a stringent representative of patriarchal reinforcement than an altruistic, uninterested figure. In this way, he favors the use of physical power and institutional force as a means to buttress authority and, hence, produces a deviated correlation of the concepts of 'virtue' and 'virility', a social aberration that Bourdieu explains in terms of the etymological similarities of both expressions:

The social order functions as an immense symbolic machine tending to ratify the masculine domination on which it is founded: it is the sexual division of labour, a very strict distribution of the activities assigned to each sex, of their place, time and instruments. [...] Manliness, virility, in its ethical aspect, i.e. as the essence of the *vir*, *virtus*, the point of honour (*nif*), the principle of the conservation and increase of honour, remains indissociable, tacitly at least, from physical virility (Bourdieu, 2001: 9, 12).

In this manner, the concerns about social welfare of versatile leaders such as Dr. X or Fang, although originally philanthropic, turn out to be a reinforcement of authoritarian systems and intensify the underlying patriarchal appetite for control and domination. These pseudo-altruist leaders are influenced by the social momentum and become more interested in power than in solving social malaises at root; their attempt to improve precarious situations does nothing but to prop their own power (even unwittingly). Such indomitable patriarchal systems will inevitably kindle confrontations since the efforts of one state to preserve their unity imply the neutralization of the ambitions of rival states. As a result, the apparent altruistic actions of socially concerned leaders ironically trigger new forms of patriarchal and ideological domination. Thus, Western patriarchy (Victorianism), an immovable hierarchical power, is confronted by Confucianism, its most powerful opponent, allegorizing the offensive of the current Chinese emergent economy against Western financial structures. Both patriarchal systems present similar hierarchical anatomies whose cunning, multifaceted leaders promote methods intended to ameliorate the status of their societies but which, as altruistic as they might seem, will end up buttressing patriarchal conventions.

I.2 Hackworth: the corporate domain and socialized ‘wet-nets’

I.2.1 The Drummers’ Society: the aporia about collective production vs. manipulation.

Hackworth undergoes a significant metamorphosis as a result of his encounter with the elites. His profession pushes him into being blackmailed and coerced to act against his will, especially whenever he shows personal aspirations like forming a nucleic tribe of his own (a family) or coveting others’ objects of prosperity (the Primer). By misappropriating a Victorian educational instrument to make his daughter hopefully a competitive individual, he uncovers a personal desire that contrasts with Dr. X’s socializing prospects, all of which exposes him as a petty bourgeois wannabe. Hackworth incarnates a syncretic archetype that blends cyberpunk’s hacker culture with capitalistic ideologies. In the first instance, he represents a type of alienated intellectual proletariat whose product belongs to an upper crust (a proof of his class betrayal); in the second, he stands for the cybernetic version of a deity (he creates technology), and thirdly, he becomes a mythic hacker who vindicates his mistakes by distributing the Victorians’ technological monopoly among opposing factions such as women and the Chinese.

Hackworth’s role in the novel is that of a classic hero by executing an expected classic program: he seizes the Primer, conveys it to the slums, spends a time in the ‘underworld’ of the Drummers and returns to civilization with a reward. This way, Hackworth fulfills what Joseph Campbell describes as the ‘monomyth’ or the hero’s journey, a cycle that includes a call to the hero into adventure in a world of strange powers, the refusal of the call, the bestowal of supernatural aid, the undertaking of tasks and trials, the acquisition of the ‘boon’ and of self-awareness,

and the return to his own world in order to exert the benefits of this gift:

A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow men. [...] Prometheus ascended to the heavens, stole the fire from the gods, and descended. Jason sailed [...] and returned with the fleece and the power to wrest his rightful throne [...]. Aeneas went down into the underworld [...] and conversed, at last, with the shade of his dead father (Campbell 2008: 23).

A complex hero, Hackworth embodies the figure of a trickster, a defiant demi-god who, like Prometheus, steals a treasured asset from the divine circles and delivers it to common people in order to ameliorate their status. “Even his name identifies him,” McClancy writes, “with the hacker/trickster figure that both echoes the cyberpunk hero and upon which the Primer relies.” (2006: 81) As a consequence of the theft, Hackworth receives a ‘corporate’ banishment and is forced to make a trip to the underworld that will awaken his dormant abilities, all of which resembles a classic cyberpunk narrative in which a hacker is ejected from corporate domains or is demoted in his capabilities and perquisites. Hackworth is initially presented as an ambitionless employee who eventually acquires consciousness and becomes a cyber-visionary, an expert in the arts of decoding the security protocols that allow him to sabotage corporate databases. This constitutes a classic cyberpunk formula, a legacy that will be modified by the socio-political structure of the society Hackworth lives in, he no longer subverts corporations but entire tribal nations. Echoing the procedures of a trickster who makes use of contrivances, moralistic pranks and ruses to expose iniquity, Hackworth makes use of devices and of his wit to undermine the governmental authority and to unmask the intentions of corporate power:

“many cultures have a Trickster figure [...]” Hackworth said. “As technology became more important, the Trickster underwent a shift in character and became the god of crafts—of technology, if you will—while retaining the underlying roguish qualities. So we have the Sumerian Enki, the Greek Prometheus and Hermes, Norse Loki, and so on” (96).

As a new mythical figure, Hackworth becomes increasingly aware of his social role, first as a concerned father (“He was just trying to secure a better place in the world for his descendants, which was every father’s responsibility” (70)), then as a cog in large machineries (living among the Drummers, for instance) and finally as a holistic personality that will embrace the ideals of people avid for democratized technologies, as he is sent in search of ‘the Alchemist’. This figure will render the ultimate details for the final construction of the Seed, a long desired invention expected to become the ultimate panacea that will bring peace and evolution to underdeveloped countries. His relation with this universal remedy (the panacea) turns Hackworth into an incarnation of medieval alchemy with a focus on the transformation of the elements, the power of creation, and almightiness, a series of potentials that only nanotechnology and the Seed itself can bring to fruition. By means of the networks related to both the Feed (monopolized by the Victorians) and the Seed, not only material needs are expected to be satisfied, but also social and spiritual ones.

The evolution that Hackworth undergoes by becoming the Alchemist, a conscious being whose intellectual abilities will heal most social malaises, is emulated by the cybernetic and nano-biological networks of *The Diamond Age*, all of which experience a similar progress, in that, treated as living bodies, they all go through an autopoietic evolution. These networks (such as the Seed and the Primer) behave like conscious bodies that absorb knowledge in a self-referred manner, this is, they take their own ‘discoveries’ as points of evolution, as observed by Leibniz, Maturana and Varela. While for the former, the universe works in an atomistic, interconnected fashion in which entities exert influence in one another, the latter ones propose a cognitive model of living entities and societies based in self-realization, thus

suggesting the term Second-Order Cybernetics or autopoiesis²³.

Leibniz's study of monads as self-sufficient and self-conscious particles results from the analysis of their interconnection and mutual influence, their relationship with divine powers, and the emergence of an internal awareness in order to assemble a collective 'soul': "All is a plenum (and thus *all matter is connected together*). [...] Wherefore it follows that this *inter-communication* of things extends to any distance [...]: *sympnoia panta*, as Hippocrates said. But a soul [...] cannot all at once unroll everything that is enfolded in it, for its complexity is infinite. [...] Monads are perpetual living mirrors of the universe" (Leibniz [1714] 2008: 61-67, my emphasis).

In this regard, the neural network formed by the Drummers to which Hackworth is sent in order to complete the Seed stands as an example of the connection of matter (the people) and information, as Leibniz suggests. The animal-like behavior of the Drummers, compelled into promiscuous sexual intercourse, stands as a manifesto of the body in need to be reassessed as the vehicle of human culture. Nevertheless, it is the 'monads', the self-conscious, self-referring nanobots inside their bloodstream, who are in charge of the construction of a higher, emergent organic body, controlled at first by an arcane power (Dr. X). The physicality of the Drummers' network emphasizes the need of a bodily infrastructure in order to avoid losing contact with their true human nature and to achieve a revolution in their level of intercommunication. The initial stage of the Drummers society is controlled by an ambiguous leader whose goals are not clear, although, with time, such a human machinery is intended to evolve and operate by means of self-referred mechanisms, as

²³ Autopoiesis: self-creation and self-realization. According to Maturana and Varela's Second Order Cybernetics, living organisms are self-sustaining and self-evolutive entities.

suggested in Maturana and Varela's autopoiesis theory.

The pessimistic situation that Stephenson describes in *Snow Crash* is due to a ravenous virus that allegorizes the noxious expansion of posthuman technologies and of capitalism itself. Nevertheless, in *The Diamond Age* he reconsiders the role of technology in the evolution of societies, and establishes a link between computers and the corporeal as the solution to the plight of the Confucian spheres by merging what is invisibly human (intellectuality and information) with what is imperceptibly technological (nanotech and data), the active with the passive (sex and dreams), the feminine with the masculine. In this manner, the long-awaited inoculation against the Snow Crash virus finally arrives in *The Diamond Age*, a vaccine that will allow a freer and more profound interaction of human cultures and which will become the panacea that derives from a multi-organic entity. The solution to Stephenson's technophobia shown in *Snow Crash* lies in the capacity of these composite beings of hacking (decoding) the meaning and functioning of bodily and social compounds. The method to render such a vaccine available is related to the amount of information carried by the efficiency of the bio-network of the Drummers plus the analysis performed by their CPU, their central processing unit, embodied by Hackworth. The difference between *Snow Crash* and *The Diamond Age* then lies in that, "although the snow crash virus is engineered to serve evil ends, it is possible to imagine someone 'hacking the brainstem'. [...] Intimating that the snow crash virus can be defeated by a healthy dose of rationality and skepticism, *Snow Crash* would inoculate us against the human-computer equation by injecting us with a viral meme, that is, an idea that replicates through its human hosts" (Hayles 1999: 278 my emphasis). In this manner, the solution (inoculation) that Katherine Hayles proposes against noxious technologies and pervading capitalism finally arrives in *The Diamond Age* when the

gigantic mass of the Drummers (a homeostatic information society) is ready to hack the Seed system, unravel its mechanisms, emulate it and undermine it.

These circumstances would make us look at the Drummers' network in two different perspectives, on the one hand, as the solution to the nefarious pervasion of technology in human domains, and, on the other, as the inevitable influence of capitalism, process that recalls the current Chinese lifestyle and methods of voracious consumption. The Drummers are portrayed as dormant entities whose sex activity is controlled and mechanized for diverse purposes, a reminiscence of Yevgeny Zamyatin's 1921 Soviet novel *We*, in which people's lives are controlled with mathematical precision and sex is promiscuously scheduled as a way to improve race and production. Likewise, the Drummers are ineluctably linked to the passivity of automatized, capitalistic production and consumption and the lack of freedom that obliterates their personalities and individuality. As Sarah Jain explains, the Drummers are entangled in a vicious circle dominated by the absence of free will and the excess of a bodily need for material assets: "In a market place economy, freedom is only ever that which can be bought, never what one already has or is. The organization of human affairs based on the belief of ever-increasing production and consumption can only result in the perpetual creation of need and desire to both produce and consume" (1999: 45).

In this sense, the Drummers allegorize an inert massive body required to be awoken in order to reignite the economy, since, as discovered by Victorian and Confucian leaders, the oblivion and ignorance they represent is no longer a viable method of control, whereas awareness and education is the key to revolutionize their consumption and thus strengthen their dominion. For this purpose, the remedy to optimize production and consumption lies in the Drummers' arousal as an attempt to

boost their consciousness, since as Maturana and Varela would point, “it follows that in a human society, a social change can only take place if the individual properties, and hence, conduct, of its members change” (1980: XVII):

Dr. X said [to Hackworth...] “The Seed is almost finished. When you left, the building of it slowed down very much [...]. But there is something in your mind that you have gained through your years of scholar studies that the Drummers, if they ever had it, have given up and cannot get back unless they come out of the darkness and live their lives in the light again” (421).

The Seed represents an approach to the reinvention of global economy, displacing currency as the staple of nations by founding a knowledge-and-consciousness based system in which the information contained within an individual will transform the means of production and will reshape the meanings and scopes of economies and networks, since, as Kathrine Lindberg states, in “cyberspace, the cybernetic subject is constituted by the information it carries” (1996: 52). With the awakening of the Drummers and the development of the Seed, a cognitive and productive revolution will ensue; as long as these dormant people are provided with information and awareness, they will improve the accuracy of their labor and, at the same time, they will require hi-tech products for their daily life and thus will accelerate the economy. In this regard, social and institutional “structures function so as to complement our individual cognitive profiles and to *diffuse human reason across wider and wider social and physical networks* whose collective computations exhibit their own special dynamics and properties” (Clark 1998, 179, emphasis added).

Nevertheless, these experimental systems entail a conflict within the psyches of the members of mass societies. The Chinese model associated with the Drummers engulfs individuals into a Rabelsian maelstrom in which personality and social functions are not only mechanized and controlled, but admit no independent creativity

and serve only communal purposes such as the Seed. In this manner, whereas the Victorians encourage the blooming of autonomous personalities, the Confucian system refuses to consider individual progress as the solution to such a precarious situation. In this respect, by the end of the novel *Carl Hollywood*, the frontman of the intellectual dissenting ractors known as *Dramatis Personae*, discloses the extent of the contrast between Eastern thought and Western practices, becoming aware of the importance of the mechanical roles of individuals in automated operations and the information they exchange in order to decode capitalistic systems, even at the cost of losing their personality:

Carl Hollywood had long suspected that, among other things, the network of the Drummers was a giant system for breaking codes. The cryptographic systems that made the media network run securely, and that made it capable of securely transferring money, were based on the use of immense prime numbers as magic keys. [...] Now Carl had the keys and, for the purposes of the Net, was indistinguishable from Miranda or Nell or Dr. X or eve Hackworth himself (400).

Likewise, in *The Diamond*, Chinese social structures might represent another legacy from cyberpunk by which the large-scale performance of massive mechanisms is described in terms of a homeostatic interconnection, though the larger the system the more inane and passive its members become and the more controlled and mechanized their free-will is. As a consequence of this Tofflerian postindustrial thought, these mass socio-economic networks allow individuals to mature faster and to broaden their horizons whereas their physical motility is brutally reduced. This constitutes an oxymoronic contrast that Sabine Heuser dubs the ‘sublime’ within cyberpunk narratives (a blend of horror and delight), indicating that, even with the vast amount of information contained in computer networks, ‘wet-spaces’, this case the body remains paradoxically motionless while the mind saunters in a sea of enhanced data. “The key moment of the virtual sublime” she explains, “brings about a break in

ordinary perception. The body is temporarily immobilized, the brain is ‘flatlined’ or virtually dead [...]. It produces a feeling of pleasure mixed with pain, also referred to as ‘delightful horror’” (2003: 212).

Hackworth’s sexual experience with the Drummers is precisely that of a delightful horror, as his extraordinary sex life reduced to an automatic labor from which he has no recollection, a paradise of pure pleasure reduced to a bagatelle by his lack of identity or memories. The ten years spent among the Drummers are tantamount to his corporate punishment, and his punishment results in an unconscious forced labor. Hackworth becomes sightless and consciousnessless, a part of a mechanism that works without his knowledge but which is expected to render extraordinary results by taking advantage of the subconscious contents of the minds of the Drummers: “The refugees, the Drummers, all slept and dreamed the same dream, and the abstract lights flickering across the mediatronic lining [3D screens] of the cavern began to coalesce and organize themselves into dark memories from deep within their unconscious mind” (459).

Representing another legacy from cyberpunk, the vast amount of data processed by the Drummers oxymoronically contrasts with the degree of awareness they possess, a procedure that involves unconscious information but no real perception that involves a dream-like state that renders no individual symbolism, but only a mass accretion of Jungian subliminal data. Typically associated with cyberpunk, cyberspace and wet-spaces like the Drummers’ produce a rupture in the Cartesian dualism, and the body is regarded as an unnecessarily heavy object that opposes the lightness of digital data. In this manner, the body is identified with an enslaving piece of historical junk, and the mind with the futuristic knack of disembodied perception. The body, regarded by classic cyberpunk as a ‘meat puppet’

(e.g. “[the] flesh the [console] cowboys mocked” (Gibson 1993, 3)), is a manipulable piece of ‘rotting flesh’ subject to the will of the ‘inner homunculus’ (the mind) and to social fantasies and bodily necessities. Thus, in cyberpunk,

the human body is [, in the digitalized information context,] reimaged and reimagined to be an inconsequential historical residue, a kind of chimera, or puppet, an *automatonic* image which is subject to almost infinite manipulation. Thus the ‘basic job’ of cyberspace technology, besides simulating a world, is [...] to supply a tight feedback loop between patron and puppet (Thomas 1995: 38, emphasis original).

Nevertheless, Stephenson reintroduces cyberpunk’s ideas in regard to the body by endorsing the idea of the physique as a manipulable data courier (like Johnny Mnemonic²⁴), and by constructing bio-cybernetic bodily networks (wet-space). In this way, the body is infected by the ideologies of the nanosites it carries and is compelled to accomplishing programmed tasks, and by this, the physique is regarded not in terms of “[...] an organic and holistic unit, understood in functionalist terms, [but ...] as a technological communications system” (Dougherty 2001: 1).

To the established notion of ‘wetware’²⁵ that involves the combination of the organic and the cybernetic, Stephenson contributes, through his mass and sex-laden wet-spaces, a new vision that combines the ‘active’ masculine with the ‘passive’ feminine, the massive (Chinese) with the individualistic (Victorian), the conscious with the latent in order to build complex societies. He also foresees the influence of

²⁴ In William Gibson’s short story “Johnny Mnemonic”, the eponymous character empties his brain of his own memories in order to free space and become an organic data carrier. The body is then regarded as an information container and equaled to a living flash drive.

²⁵ ‘Wetware’ can basically signify three things: 1) the analogy of the human body regarded as a computer, which identifies the central nervous system with the hardware, and the mind with the software; 2) a person operating a computer; 3) the cybernetic augmentation of human capabilities. “Wetware: the human brain or a human being considered especially with respect to human logical and computational capabilities” (Merriam Webster Dictionary). “Wetware. Noun, humorous: human brain cells or thought processes regarded as analogous to, or in contrast with, computer systems. • (chiefly in science fiction) computer technology in which the brain is linked to artificial systems, or used as a model for artificial systems based on biochemical processes” (OED).

virus-like entities that enslave the minds of individuals in order to produce automated behaviors and bio-networks whose intercommunication depends on an animal department so as to fulfill higher goals and aspirations, depicting “[...] the Drummers [as] individuals indiscriminately copulating or drumming as nodes of the ‘Wet Net.’ In at least some measure made up of involuntary recruits, Drummers form a ‘gestalt society,’ which is to say they share thoughts without being aware they are doing so.” (Rubin 2006: 10) The Drummers society, a truly cyberpunk legacy, acquires a new perspective at the prospect of its awakening and constitute the contribution of postcyberpunk to the fatalistic views of dystopian narratives. This community presents a beneficial side to the noxiousness of these networks, since “in these terms *The Diamond Age* suggests that the combination of sexual transmission and nanotech computation can bring about an evolutionary leap, a complete merging of hardware and wetware, machines and biological life” (Johnston 2001: 235).

The Drummers and the information they carry constitute a ‘wet net’ that merges ideology and materiality like no other. In this sense, the material components of a network incarnated by the nanosites and the bodies of the people come to influence the course of action of the entire society of Drummers as well as the world that depends on them. In this regard, the impact of material objects alters the perception and the lives of the people involved. As explained by the Actor-Network Theory²⁶, the material elements of these societies acquire a semiotic connotation or significance. As this theory claims, the role of objects can participate more actively in the formation of ideologies and cultures than human actions themselves. In this manner, a strong structure that involves human actions and the influence of materials

²⁶ The Actor-Network Theory (ANT) suggests that not only human contact or the exchange of ideas influence the development of culture, but also material objects such as mobile phones, PDAs, the Internet or any other item that encourages evolution. See Latour (2005) and Law (1992).

evolves from networks like this one, and a temporal system constantly reinvents itself with the aid of material influence. Thus, such a system constantly reshapes its connotations by blurring the boundaries between the significance of the materials (the body, nanotech) and the materiality of the significances (the capitalistic/socialized suprastructure that derives from the Drummers' activities). The materiality of the nanosites *acts* as a cohesive factor and shapes the relationship among the Drummers; the nanosites dictate, for instance, their degree of awareness and activity since these small machines are responsible for keeping them mesmerized or awaken at will. Thus, if “anything that does modify a state of affairs is an actor” (Latour 2005: 71) these nanoparticles stand as the material agent that convey and cohere Confucian ideologies that spring from these massive networks, since, as Maturana and Varela state, “the realization of the autopoiesis of the components of a social system is constitutive to the realization of the social system itself” (1980: XXIV).

The Chinese are then a constant reminiscence of large Rabelian bodies, which, different from traditional views that label the body as a hierarchical synergy of organs, lack specialization and distribute their systemic agencies onto their tiny discrete components, forming “a *body without organs*, which is continually dismantling the organism, causing asignifying particles or pure intensities to pass or circulate, [since...] *collective assemblages of enunciation* function directly within *machinic assemblages*” (Deleuze 1988: 4-7, emphasis original). In these Chinese hive bodies specialization lies in every mote, every element, every individual and not in organs (or institutions), and, like nanosites, their functioning depends on the information they carry. This data can be uploaded and offloaded from the subject depending his/her next function within the whole. The network of individuals (as well as of nanosites) produces an overall result derived from their neural interconnection.

From such a perspective, one last concept explains and expands the Leibnizean idea that everything is interconnected, all the monads interrelated, a holistic connectionism: a rhizome (“Any point of a rhizome can be connected to anything other and must be” (Deleuze 1988: 7)). The rhizomic traits of nano-bodies emerge in a fractal manner, and identify the nanosites as a carbon copy of human specialized labors; these nanobots imitating human behavior and functioning. In this regard, the fractals formed by the nanosite imitation of human department of are not only related to the minuscule level or to the Drummers, but to the entire novel, and create a symmetric *emerging* structure built from the bottom-up which mirrors the occurrences of the upper levels (such as societies or institutions) in the lower strata (such as the nanosite hierarchies). This is also explained by John Johnston:

All of these systems are comprised of large numbers of interconnected and highly networked agents, making them rhizomatic structures in which information circulates freely and organization occurs from the ‘bottom up’. [...] Everywhere, at every level, swarm systems emerge, as if the novel itself were striving toward a fractal design of self-similar patterns at both the higher and lower scales (2001: 235).

These fractals, composite self-similar structures “actually sub-divided without end” (Leibniz [1714] 2008: 65), nonetheless become useful only as long as their ideological contents reflect the social phenomena they represent, like it happens with the clash of the capitalistic ideologies of the nanosites and the socialized implications of the Drummers. These bodies are then presented in a continuous struggle for self-preservation and evolution and merging constantly with one another, the individual with the collective, the passive with the active, the conscious with the oneiric. In the same manner, the Drummers and Cryptnet (the other hive organization in the book) will merge with one another in order to exploit their capabilities, since, in the material and ideological domains, they exchange elements and complement each another.

Whereas the Drummers constitute a mesmerized controlled entity, CryptNet provides a sense of consciousness and liberty to the organic homeostasis that will emerge from the fusion of both.

I.2.2 CryptNet, a waking ‘Wet-Net’: the cybernetic struggle for consciousness

Hackworth’s heroic cycle, as mentioned, includes a journey to a world of strange powers, the acquisition of the ‘boon’ and his return to the homeland, all of which constitutes an awakening personal experience whose achievements will be applied to the mass society of the Drummers, a dormant community in need to be awakened in order to optimize their productiveness. Beyond the problem of wakefulness, the issues related to the anonymity of the Chinese massive bodies represent a major case of productiveness and social evolution. While the Chinese favor massive mechanical production (turning workers into anonymous machines), the Victorians opt for individual creativeness and critical consciousness. In this regard, Stephenson’s novel emphasizes the need to provide political consciousness to the Chinese gargantuan bodies by means of an interactive education. In this way, the individualism of the Victorians is thought to contribute to the evolution of Chinese societies, especially by providing stimuli and individual ambitions to these faceless masses.

In the same manner as Bud’s death stands as a proof of cyberpunk’s demise, Hackworth’s awakening attempts to put technophobia and nihilism behind and, thus, consolidate postcyberpunk as a genre. Hackworth embodies a combination of Victorian self-awareness and individualism with Dr. X’s technologized socialism. The former’s awakening after a ten-year seclusion provides him with a powerful accreted knowledge that modifies his worldview and makes him change his personal ambitions into socialized programs and, by this, he becomes a redeemed messiah associated with his namesake Perceval. Hackworth then transforms his corporate psyche into a blend of self-controlled visionary and sagacious rebel, a trickster who will crack open not

only the corporate system he defected from, but also the oriental hive-mind that develops socialized projects such as the Seed.

In this sense, CryptNet, an alternative hive organization associated with seditious Victorians, seeks to assemble and transmit information from peer to peer and build a type of ultra-conscious Freemasonry whose agents infiltrate and recruit members from every other phyle: “CryptNet is a powerful secret society that has spread its tendrils high into every phyle and corporation in the world.” (129). Its goal is to exchange nanosites through sexual intercourse, by which people become posthumans²⁷ of sorts. CryptNet, by means of nanotechnology, searches for the evolution of consciousness and of society, the amelioration of life, and a form to modify not only human nature but history itself. Unlike cyberpunk cyborgs, the bodily technology that CryptNet members have does not revolve around hypersexuality or physique augmentation but around intellectual enhancement and information exchange. As opposed to cyberpunk’s transhumans, CryptNet’s true posthumans seek to build a highly informed society that will change the course of future events. As Thomas Foster indicates: “contemporary posthumanist impulses to intervene in and direct what would once have been a process of natural selection, in order to accelerate humanity’s potential for differentiation and (self) modification, do tend to contest that boundary [between nature itself and historical processes]” (2005: 6).

²⁷ No actual results have been obtained from the discussion on the difference of transhumanism and posthumanism, yet it is understood that the former denotes the physical transformation of the human body by means of technological enhancements; its main objective is the extension of life and the augmentation of abilities. The latter focuses on technological aids to magnify the intellect and awareness. Hayles claims “we should value the late evolutionary add-ons of consciousness and reason not because they are foundational but because they allow the human to emerge out of the posthumans we have always been” (1999: 279). See Hayles 1999.

CryptNet, unlike the Drummers' society, promotes a conscious evolution of hive systems and encourage the development of individuality. Although it represents a secret and abstruse organization, CryptNet constantly makes reference to the names and personalities of its members, thus underlining the importance of the individual in the functioning of massive bodies, what Maturana and Varela (1980) identify as the role of the individual's realization in the consciousness of the social. In this regard, the reason of the consciousness attributed to CryptNet and the impending awakening of the Drummers as a way to improve their productivity points at the consolidation of the link between consumption, education and critical awareness. The oriental social model of Dr. X is expected to come to fruition only as long as it includes a shade of personality and individuality among its members such as the model provided by Hackworth's ambition to ameliorate the situation of his own family.

CrypNet's posthuman model then refers to the evolution of the social as a living organism, stressing the importance of the flux of information, collectiveness and the enhancement of consciousness, since its affiliates "believe that information has an almost mystical power of free flow and self-replication", and regard the Victorian Feed as "a contemptible system of oppression", and therefore believe "that the Seed will develop inevitably from the Feed, and that upon it will be founded a more highly evolved society" (353). CryptNet's evolutive posthumanism recedes from cyberpunk paranoid dystopias and responds to a postcyberpunk proposition in which the philosophical relation between technology and mankind is regarded in terms of the propagation of hive consciousness and the enhancement of human capabilities. These two avenues, represented by trends such as extropianism and posthumanism, relate to the fantasy that life will continue and expand in the universe

by means of human intelligence and technology, two trends described by Eugene Thacker: “The first thread I will refer to as ‘extropianism,’ which includes theoretical-technical inquiries into the next phase of the human condition through advances in science and technology. [...] The second thread is a more critical posthumanism, [...] bringing together the implications of postmodern theories of the subject and the politics of new technologies” (2003: 73).

The extropianism embodied by CryptNet refers to the indefinite expansion of human intelligence by means of a blend of consciousness and technology, an extropian manifesto associated with the evolution of the masses that contrasts with the romantic perspective of a more purist posthumanism which focuses on the progress of the individual rather than on societies as continuums. Nevertheless, the posthumanism embodied by CryptNet is highly responsible for the transmission of evolutive memes through nanotechnology, and in this way, a postconscious subject is expected to be born out of technological progressiveness, since “we can no longer assume that consciousness guarantees the existence of the self. In this sense, the posthuman subject is also a postconscious subject” (Hayles 1999: 280).

CryptNet’s transhumanism constitutes a blend of extropian scopes and social theories of evolution, leaving behind, at least in *The Diamond Age*, body anxieties and thanatophobia. In this sense, the novel’s hive-bodies favor social Darwinism and the evolution of communal consciousness for over the individual, contrasting with cyberpunk’s pessimistic settings in which the development of common people is hindered (Gibson’s *Neuromancer*, for instance). CryptNet’s high degree of awareness allows its members to disregard the barriers of the flesh and, although their bodies constitute the vehicles for the flow of information, they underscore the importance of the perpetuation of social and informational structures for over individual prosperity.

“Like humanists,” Max More states, “transhumanists favor reason, progress, and values centered on our well being rather than on external religious authority. Transhumanists take humanism further by challenging human limits by means of science and technology combined with critical and creative thinking. [...] *We see humanity as a transitory stage in the evolutionary development of intelligence*” (1999: web, emphasis added).

In regard to the union of individuality and the mass body, and of consciousness and technology as the means to achieve social evolution, the Alchemist stands as the central figure that blends Victorian leadership and erudition with the mechanical procedures of the Drummers and, later, with the neural expansion of CryptNet. His role is to counterbalance the technophobia and posthuman-phobia of *Snow Crash* and to promote a humanist vision of mechanization, emphasizing the power of technology on the evolution of societies. His objective is the formation of a global consciousness, a fantasy of multiple intellectuals: “Louis Rossetto argued ‘society is organized by a hive-mind consensus’ that allows humanity to evolve into ever higher forms, perhaps even fulfilling McLuhan’s prophecy to make of the entire globe, and of the human family, a single consciousness” (Dery, 1996: 47).

CrypNet’s goals include the deposition of Victorian patriarchy and the construction of a postshumanist antihierarchical community in which material ambitions are relegated to a second plane, and where socialized informational programs become a priority. The central figure to achieve such objectives is the Alchemist who paradoxically epitomizes a product of the Victorian individualistic spirit and its main detractor at the same time. “Hackworth’s work designing the Seed”, as McClancy puts it, “seems to place him firmly on the side of the anti-hierarchical Drummers and CryptNet. But again, Hackworth’s brilliant engineering

here seems to come from an irrational place” (2006: 81). Nevertheless, although CryptNet might present itself as an antihierarchical, antipatriarchal organization, its inner structure is that of a tiered, echeloned congregation that imitates both the Confucian and Victorian societies in that its undercover agents acquire more power the higher their status, a replica of Freemasonry lodges that foster patriarchal supremacies:

“Over and over again, first-level CryptNet novices work their way up the hierarchy to the tenth and supposedly highest level. [...] This pattern has been widely noted and has led to speculation that CryptNet contains many levels beyond the tenth.” (129) “[CryptNet] represents itself as a simple, moderately successful data-processing collective. But its actual goals can only be known by those privileged to be included within the trust boundary of the thirty-third level” (352).

Nevertheless, by emulating social hierarchies CryptNet attempts to counter the infinite dominion of corporations and governments, and for this, its primary target is to expose the double-edge nature of the Seed which, although a democratized version of the Feed, it could easily become an instrument of totalitarianism like the Soviet government once was: “if everyone possessed a Seed, anyone could produce weapons whose destructive power rivalled that of Elizabethan [Victorian] nuclear weapons” (353). In this regard, at this point of the plot, CryptNet stands as an innocuous organization whose role is only that of exposing the nature of the monopolized Feed as a hypocritical Victorian way to retain popular dominion. For CryptNet as for Rousseau, the State must be a moderator for the general will, and not an autocratic self-serving organism: “I understand by this word [republic...], generally any government directed by the general will, which is the law. To be legitimate, the government must be, not one with the Sovereign, but its minister” (Rousseau 1762: Book II, 12). The State as a regulator must, in times of *The Diamond Age*, make use of diverse technologies to maintain its sovereignty, but, as uncovered by CryptNet,

the technological monopolies (especially the Victorians’) conceal their oppressive intentions and use informatics and machinery to the benefit of the upper classes rather than for popular welfare. The result of these totalitarian uses of technology is a widespread paranoia based on the increasing power of rival organizations:

“CryptNet’s true desire is the Seed—a technology that, in their diabolical scheme, will one day supplant the Feed, upon which our society and many others are founded. Protocol [a regulatory institution], to us, has brought prosperity and peace—to CryptNet, however, it is a contemptible system of oppression. [...] The Feed is not a system of control and oppression, as CryptNet would maintain. *It is the only way order can be maintained in modern society* (353, emphasis added).

The novel’s relativism and its objectivist spirit, classic traits of postcyberpunk, reveal the complex dilemmas of technology, inevitably used for dubious purposes such as terrorism or oppression, and for beneficial effects such as biopolitics and socialized programs like the Seed. In this regard, Protocol Enforcement, a Rousseauian-Victorian program designed to retain the balance between technology and politics, constitutes the ultimate agency and a socio-politic mediator that enforces a ‘contract’ that stabilizes the lawlessness inherited by cyberpunk. Protocol Enforcement also restrains the unrestricted ambitions of governments derived from their uncontrolled access to industrial technologies. It acts as the intercessor between political forces in the Victorian world, but its goal is to privilege communal order over individual aspirations: “Consequently [the city] was generously supplied with agoras, owned and managed by Protocol, where citizens and subjects of different phyles could convene on neutral ground and trade, negotiate, fornicate, or whatever” (211).

Yet CryptNet becomes aware of the patriarchal intentions of the Victorians to retain the monopoly on the Feed not as a means to regulate the state, but as a paranoid form to retain control. This is the reason why CryptNet demonizes technology and, as a solution, it presents an alternative paradigm, a virtuous

circle that will render benefits by expanding people's consciousness into ever more aware and vast 'wet nets'. In this way, CryptNet underlines the importance of the distribution of labor, information and capital within non-hierarchical societies, a postcapitalistic model in which the physical domains (associated with consensual sex by which nanosites are exchanged) blend with the spiritual (represented by beneficial technology and consciousness). "There is reason to believe that these technologies", writes David Thomas, "might constitute the central phase in a postindustrial 'rite of passage' between organically human and cyberpsychically digital life-forms as reconfigured through computer software systems" (1991: 33).

Unlike the Drummers, CryptNet allows its members to accomplish a double function as desired, on the one hand acting as individuals who possess complex networked systems inside themselves, and, on the other, becoming a unit within large cognitive conglomerations. In this regard, the individual himself plays the role of a complex system, a proof that the subject is the foundation of the communal:

"The people themselves [CryptNet agents] have computers, typically embedded systems," Maggie said [to Hackworth as she explained the functioning of CryptNet...].

"Is the node synonymous with the person, then?"

"In many cases," Maggie said, "but sometimes it's several persons with embedded systems that are contained within the same trust boundary" (351).

In this way, it is also disclosed that not only the individual can be equated with a complex network, but that the boundary between cognitive machines and cognitive subjects has been obliterated, making clear the position of the novel, which treats humans as meme transmitters and as cyber-cultural, machine-like organisms "We cannot change our computational natures;" Katherine Hayles states, "at bottom, Stephenson suggests, we really are nothing more than information-processing

mechanisms that run what programs are fed into us. We should value the late evolutionary add-ons of consciousness and reason not because they are foundational but because they allow the human to emerge out of the posthumans we have always been (1999: 279).

It is clear that, like the intentions of the Drummers, Dr. X and Hackworth, CryptNet's concern is on the creation of a quite peculiar panacea, not a method of control or weapon to strike against patriarchy, but the accretion of an unprecedented global consciousness based on the information carried by nanosites. CryptNet's struggle is not even for education, but for the flux of information: "Typically, data is delivered into your system. You process the data and pass it on to other nodes" (350), whereas "CryptNet is just a simple, innocuous tupleprocessing collective, man" (128). The methods of CryptNet to topple social determination, control and prejudice, thus, include anarchic awareness (a self-regulatory social attitude), self-realization and the formation of vast informational networks that will sometime constitute for these seditious people the panacea that the Seed represents for the Confucians.

I.2.3 Oppressive simulations and deceiving virtual realities: a comparison of *The Diamond Age* with other sources

Diverse Sci-Fi works examine the issues related to massive control, postcapitalism and oppressive networks. This section includes a series of comparisons between *The Diamond Age* with other works that deal with subjugating computer networks or virtual realities. This is a recursive figure that Stephenson's novel inherits from classic cyberpunk and which forms part of a tradition in cybernetic narratives such as *The Matrix*, *Tron*, Daniel Galouye's 1964 novel *Simulacron 3*, Gabriele Salvatores 1997 film *Nirvana* or the 1999 film *The Thirteenth Floor*. The examination of the forms in which these sources examine the issues concerning oppressive networks will provide a set of new elements that will enrich the analysis of this phenomenon approached by *The Diamond Age*.

Stephenson's cyberpunk novel *Snow Crash*, a work about hyperinflation and post-nation states, describes the formation of corporate-dominated territories as the new political division of the world. The flotilla colony known as the 'Raft' off the shores of California constitutes a fiber-optics monopoly led by L. Bob Rife whose authority goes beyond pecuniary levels. By means of remote-control technology he commands a colossal group of deranged refugees who speak in tongues and who inexorably follow his orders, a description that allegorizes the intangible link between the feeble human mind and late-capitalistic methods of control.

In this regard, whereas the people in the Raft bear an irrevocable link with aggressive forms of capitalism and consumerism (they are controlled to consume specific products), the Drummers' bond with post-capitalism is associated with sexual promiscuity and nanotechnology. As opposed to CryptNet's enviable level of awareness, the Drummers are subject to subliminal control, as their perception is

blotted out and their identity is obliterated when their memories are wiped out and their physical mobility impaired. In *Snow Crash* and through the Drummers' in *The Diamond Age*, Stephenson has a pessimistic opinion about the influence of technology in daily life. "Stephenson clearly sees the arrival of the posthuman as a disaster", declares K. Hayles, who examines the detrimental impact of capitalism and technology, against which the only solution is to hack "the brainstem for liberatory purposes" (1999: 276). Such an operation, to "hack the brainstem", stands for the identification, modification and protection of the different qualities that make the human psyche vulnerable. In order to achieve this, *The Diamond Age* underlines the relevance of personality, individuality and creativeness as the answer to such a conundrum, and proposes the blend of CryptNet's consciousness with the Drummers' mechanicalness as the key to the strengthening of humankind's capabilities to counter capitalistic domination, a solution that *Snow Crash* failed to obtain: "Functioning as automata, [the people on the Raft] body forth a version of the posthuman that stands in horrific contrast to the free will, creativity, and individuality that for Stephenson remains the essence of the human" (1999: 278). In this regard, in *The Diamond*, Stephenson finally devises a form to reconcile these human traits with the technological revolution that envelop modern societies.

As noted in previous sections, such a posthuman revolution does not only require the blend of consciousness and mechanicalness, but also demands the presence of a catalyst, a figure that sparks a conscious metamorphosis. In this regard, like Judge Fang, a character who conflates Eastern and Western ideologies, Hackworth also possesses a multicultural vision that mingles his corporate expertise with the erudition gleaned from the Drummers and CryptNet in order to unmask the hypocrisy of Western patriarchy and to establish paradigms to redirect massive

programs such as the creation of the Seed: “CryptNet [Dr. X says,] was tied in with something much deeper and more interesting—the society of the Drummers. With their flaky and shallow Western perspective, CryptNet didn’t grasp the full power of the Drummers’ collective mind. But you [Hackworth] got it right away” (420).

The Drummers passivity is associated with oblivion and manipulation; through these two methods capitalism impose its ideologies and influence the masses to consume specific products and to become a robotized labor force that produces the best products of the big multinationals, products that will be consume by the masses again. The wet-net formed by the Drummers stands as an oppressive realm in which perception and reality are also manipulated. In this very regard, Daniel Galouye’s 1964 extraordinary novel *Simulacron-3*, as well as Fassbinder’s 1973 masterly film adaptation *Welt am Draht*, present an immersive virtual construct in which computer-generated characters are employed to obtain marketing information and thus reduce the need of opinion polls in the real world. In this way, the ‘dwellers’ of this virtual setting are misled into believing that their world is tangible and concrete²⁸, and as real as ours. A scientist from this artificial place, Douglas Hall, designs an identical simulation (another virtual reality) that leads him to disclose the real nature of his own environment. Like Hackworth, Hall is later ‘awakened’ by an external factor, a call from the real world that gives him consciousness and allows him to travel between the simulation and the original universe. The people within the construct thus appear socially determined by the lifestyle created for them which constitutes a system that prevents them from discovering the other possibilities of existence and that subjects them to the capitalistic laws that turn them into systemic guinea pigs.

²⁸ Although an oxymoron, a virtual reality is actually no less real than a ‘real’ reality, since it exists whatsoever, regardless of its true nature. *The Matrix* franchise, for instance, portrays a virtual reality in which people perceive a reality that is ‘real’, but not the truth.

Likewise, in Gabriele Salvatores' 1997 cyberpunk film *Nirvana*, the protagonist of an ultra-realistic videogame discloses the subjugated nature of the artificial environment that surrounds him. Manipulated by an external player, he becomes aware of his constricted plight as a prisoner of a finite world in which every other character plays a determined role within an artificial society. As he learns about the futility of his existence, he beseeches the creator of the game (who represents a deity for him) to terminate his life. In a classic cyberpunk²⁹ description of the struggle between individuals and capital domination, this character informs his peers about their exploitation, but is blatantly ignored even when he provides irrefutable evidence of the manipulation and subjugation they are subject to. In this manner, the apparently free decisions of these characters are really made by a master puppeteer who pulls their electronic strings. Thus, the game player and the game designer both embody a type of divine figures that determine the rules of the system and manipulate the fate of the characters.

In this regard, game players are also prone to engage in a twofold precarious situation in which, on the one hand, their bodies remain passive as their minds control a virtual subject, while, on the other, their psyches create a series of onanistic fantasies of agency and power. This phenomenon allegorizes an ideological symbiosis between a consciousnessless lumpen subject who voluntarily indulges in a passive role, and the avatar who represents the controlled subject whose subjugation represents the ultimate chimera of power.

In the same manner, Nevelandine and Taylor's 2009 film *Gamer* presents a nanotech setting in which people are conscripted as avatars of a flesh-and-blood

²⁹ Videogames embody the essence of cyberpunk, as the player must crack open (hack) different stages of encryption to topple the enigmatic, parapeted guardian of a treasured level, all of which allegorizes the MOs of corporate capitalism.

militarized computer game, while their brain cells are replaced by wireless nano-antennae that take over their brain-muscle connection, thus depriving them of their free-will (or actually free motion). As a blatant symbol of corporate domination, the obsessed creator of such technologies is determined to control the entire population of the world, for which he starts by offering death-row prisoners or mercenaries to give up their capability of decision and thus they will be controlled by someone else, an agreement unconsciously desired by innumerable passive subjects whose creativity and will to power is reduced to a distressing degree of lassitude and listlessness. The solution to this situation, according to the film, lies on humanist love and collective determination, a type of consciousness brought about by the power of globalized media and of distributed information.

Similarly, Kurt Vonnegut's 1959 masterpiece *The Sirens of Titan*, like *Snow Crash* and *The Diamond Age*, portrays a group of beguiled soldiers trained on Mars by an apparently crazy and capricious tycoon to wage war against earthlings in order to impose a new universal quantum-mechanics religion, a scenario that links the military and religion with capital power. These soldiers are deprived from their free-will and identity by deleting their memories, and are equipped with brain antennas that control their movements, conditioning them by means of Pavlovian methods that produce electric-inflicted pain if they contravene their duties. One of these soldiers, Malachi Constant (aka Unk), is coerced by an unknown force to kill his best friend after his memory is tampered with. By means of an extraordinary personal effort and with the help of an external factor (a letter written to him), Constant recovers his identity and manages to comprehend the nature of the oppressive ambience that confines him: "Unk had written the letter to himself before having his memory cleaned out. It was literature in its finest sense, since it made Unk courageous,

watchful, and secretly free. [...] And, in accepting [the information contained in the letter], Unk gained an understanding of life that was identical with the writer's understanding of life. Unk wolfed down a philosophy" (Vonnegut 1967: 63). Like Stephenson, Vonnegut stresses creativity and individuality to overcome the harmful effects of transhumanism. He trusts in an inner, personal struggle as the solution to the unmanageable capitalistic control on the subject, a posture that defends humanism without demonizing technology but which tries to cope with its unavoidability.

In a similar way, the answer to the quandaries of the brainwashed characters of Alex Proyas' 1998 film *Dark City*, lies in their perseverance to find a humanistic purpose of life. In the film, aliens known as Strangers inject people with a substance that carries artificial memories in order to provide them with a new personality everyday and test them in different situations so as to learn from their behavior. The key to the salvation of the Strangers' race lies on the recognition of the traits that compose human nature in order to imitate them and thus evolve as a species.

The vast variety of personalities comprised in the psyches of the inhabitants of *Dark City* derives from the artificial memories injected in their minds, a phenomenon that amounts to a postmodern construction of identity built from scraps of other people's memories. The key to the rehumanization of the automated social roles that these characters perform resides in the awakening of dormant powers and in their acquisition of self-awareness, a process that elicits Nietzsche's paradigms regarding cultural evolution as a way to challenge the ideological domination that takes advantage of the ignorance of peoples. The fertile consciousness attained by the characters of *Dark City* is derived from the variety of trades and professions they execute and from their personal ambitions to grow as individuals, a condition that results in the rejection of the social determination that prevents them from discerning

the truth about the nature of their existence.

Nevertheless, perhaps the best example of mass control by means of computer technology in cyberpunk narratives is provided by the Wachowski brothers' *The Matrix* franchise, a set of films, animes and comics that encompass a postmodern collage of philosophies such as Platonism, Berkeleian idealism, Cartesian dualism, mind control, epistemology and the nature of perception, as well as other theories about the control of the mind such as the 'brain in the vat'³⁰ or the 'evil genius': "*The Matrix* is a vivid illustration of Descartes' additional mind blowing claim that we could *never* be in direct touch with the real world (if there is one) because we are, in fact, all brains in vats" (Dreyfus 2002: 23). Like *Neuromancer's* description of cyberspace as a consensual compound (in the novel, cyberspace is defined as "the consensual hallucination that was the matrix" (Gibson 1993: 12)), the inhabitants of the Matrix live in a virtual construct, a blatant lie that fabricates an entire world perceived by everyone as true.

Whereas in Gibson's novel such a consensual virtual reality takes the shape of a mathematical series of interconnected operations ("Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts" (Gibson 1993: 69)), the Wachowski's franchise demonstrates that, as George Orwell proclaims, mainstream thought and the mental construction that we call 'the world' are statistical and collective, both a construct that, although rigged and manipulated, requires everyone's full acceptance or otherwise cataclysmic system failures might ensue. In *The Matrix*, the communal agreement on the nature of the universe is then built from the bottom-up, merging the

³⁰ A mental experiment is carried out in regard to the nature of perception and the information obtained by means of our sensorium by theorizing about a brain floating in a vat where it is fed electric currents that make it believe it is perceiving things as if it were a real human being. The objects and sensations it perceives are fabricated but the brain interprets them as real occurrences.

consensus and participation of every individual in a communal view that absorbs Baudrillardian notions of hyperreality, all concepts that underscore the role of capital in the construction of worldviews:

The real is produced from miniaturized cells, matrices, and memory banks, models of control - and it can be reproduced an indefinite number of times from these. [...] Hyperreality and simulation are deterrents of every principle and every objective [...]. Because in the end, throughout its history it was capital that first fed on the deconstruction of every referential, of every human objective, that shattered every ideal distinction between true and false, good and evil, in order to establish a radical law of equivalence and exchange, the iron law of its power (1994: 2, 22).

For *The Matrix* as for Baudrillard, reality in the age of late capitalism is perceived, rather than by the actual, through a simulacrum, a reproduction of the real that supersedes the sense of authenticity of pristine objects and which provides a delusive perception of the world, also the case of religious iconography once taken as the genuine source of divinity but which is hollow and meaningless, or of those talismans that elicit more devotion than the godly powers themselves: “This is precisely because [the iconoclasts] predicted this omnipotence of simulacra, [...] the destructive, annihilating truth that they allow to appear - that deep down God never existed, that only the simulacrum ever existed, even that God himself was never anything but his own simulacrum - from this came their urge to destroy the images” (Baudrillard 1994: 5).

In this manner, Vonnegut, Stephenson (through his description of *Snow Crash* as a virus that inflicts in people religious ideologies) and the Wachowskis equate religious power with wealth and militarism, a patriarchal system that has sustained itself for centuries ever since cults were erected in eras in which the holders of religious authority also governed economic and political grounds. In *The Matrix*, for instance, the protagonist and future messiah, Neo, undergoes a similar process to that of Hackworth's in that he awakens to social awareness by means of this technological

agency. Neo and Hackworth both need to get immersed into a deep cybernetic experience in order to become the decryptors of the system, after which they are capable of leading entire masses into ideological freedom.

While Hackworth shepherds the Drummers into consciousness after being awakened by an external factor, a nanosite controlled by Dr. X, Neo is constantly awakened by diverse gadgets, (a computer, a telephone, an alarm clock), all managed by the digital image of a mythological deity, Morpheus, a representation of John the Baptist who ushers Neo (an allegory of Christ) into the path of truth. The humanist proposal of *The Matrix* and *The Diamond Age* inevitably develops links with posthumanism, as Neo and Hackworth require a technological thrust (an external aid) in order to comprehend the true nature of their roles as leaders and visionaries, a condition that these modern messiahs cannot escape since they are submerged in a technologized environment.

At the beginning of the film, Neo seems to wake up three times to a mystical experience, but it is not until the moment of his first digital ‘death’ that he discloses the miraculous power of decryption (hacking) as the way to expand his own consciousness and to decipher the modus operandi and methods of patriarchal control. “When the messianic Neo rises from the corridor floor,” Isaacs and Trost write, “we see the matrix through new eyes, the eyes of the arisen One, who now decodes the data that forms the simulation. In reading and decoding the matrix, Neo transcends the world of illusion” (Isaacs 2004: 66). In the same manner, Hackworth is also awakened twice, once by means of the inoculating nanosites (controlled by Dr. x) that bring him to awareness, the other by assuming his role as the Alchemist and leader of the nanotechnological revolution that is concocting around him.

The Matrix thus elicits a debate on the nature of perception and mind control by

presenting a dilemma that the protagonist has to solve by making a choice. The blue pill that Morpheus offers Neo at the beginning of the film (a tablet that will erase Neo's social consciousness and will convey him back to his ordinary reality) is a representation of consumeristic comfort and of the illusion of happiness brought about by the accumulation of capital, whereas the red pill (identified with the forbidden fruit that makes Adam aware but expels him from paradise) represents a means to acquire a consciousness by decrypting the elements that build the illusion they are all part of. Decisions like this are made only by members of a selected group, the ones capable of understanding the scopes of capitalistic control, while the great masses reject the opportunity to acquire consciousness and instead opt for petty pleasures and leisure. "What makes the hero superhuman," Bartlett and Byers suggest, "is precisely his posthuman, cybernetic, information-machine-like qualities. Moreover, the difference between Neo and the human batteries [the masses] finally turns out to be no greater than the difference between the couch potato who watches TV all day and the video gamer for whom virtual recreation offers a fantasy of agency" (Bartlett 2003: 42).

The *Matrix* films then propose an awakening into critical awareness by means of technology and science, a postcyberpunk premise (although the franchise remains cyberpunk in essence) that underlines the need of a humanist revolution that uses knowledge and personal experiences in order to develop class-consciousness. This constitutes a manifesto that tries to distinguish what is genuinely human from what is not, what is freely chosen from what represents robotized behaviors like that of the *Matrix*ians or the *Drummers*: "The human, in short, is absolutely distinct from the inhuman over which it towers in a position of natural supremacy. I think, therefore I cannot possibly be an automaton," says Neil Badmington (2003: 18). For Stephenson, contrary to the technophobia he embraces in *Snow Crash*, technology is also the

vehicle to attain a supreme consciousness that will liberate humankind from the robotized lifestyle associated with capitalism and social determinism.

The main distinction between the sleeping swarms (the Matricians) and the conscious protagonists lies in the fact that the latter opt for a life of struggle and consciousness, whereas the former select the cozy comfort of an easy life: “*The Matrix* itself provides evidence that, barring enslavement and deception, we would prefer life within the Matrix to a continual struggle for survival outside it” (Vasiliou 2005: 112). Likewise, the Drummers in *The Diamond Age* represent the masses that will eventually need to ‘eat bread by the sweat of their brows’, since, after their awakening, they will leave the snug niche of sex provided by a capitalistic framework, and return to a life of constant struggle.

In this regard, the capitalistic regimes described in these narratives produce a sense of engulfment associated with a state of immobility, a cyberpunk theme extrapolated onto postcyberpunk that leads us to a Marxist reading of *The Matrix*, allowing for the explanation of the meaning of the dormancy of the Matricians and the Drummers (the latter also involved in a perpetual sexual intercourse) as the ultimate technique of capitalistic mass control:

So the matrix is the ideological apparatus, the artifice of reification – the superstructure, seen from the outside to be the evidence of the alienation of man's labour-power. The matrix code perhaps facilitates the means of accelerating circulation and consumption. The human bodies in stasis in the real world are the market, where the extraction of surplus value has approached perfection. The machines simply buy the labour-power of the human race with the dead remains of other workers (Leary 2004: web).

Technology then holds a double-edged purpose in regard to perception, since, on the one hand, it promotes the enhancement of the sensorium (as noted), and, on the other, it can be used to manipulate the sense of reality of the people who depend on it. In this concern, technology and awareness both constitute methods of capitalistic

control, since, although consciousness is thought to liberate the masses, an individual's awakening is actually associated with a technique that will improve their productivity and their consumption, as seen with the Drummers. In this manner, the improvement of productivity associated with skill enhancements also entails an educational and cognitive revolution in the sense that the better the instruction the greater the production and consumption.

Like in *The Matrix*, the characters of *The Diamond* also suffer from sensorial manipulation and capitalistic control. In Stephenson's novel technology also serves a twofold purpose: one, by providing a sense of comfort and evolution, the other, by manipulating people's perception. Both, *The Matrix* and *The Diamond*, present dreams as the most vulnerable part of the human psyche and the most likely to be exploited. Whereas in *The Matrix*, the passive dreaming subjects are linked to inactive and submissive consumerism and industrial hyperproductivity, *The Diamond* identifies sex and dreams as the ultimate manipulation of desires and aspirations. By tampering with the sexual desires and the hopes of the characters the expectations of these characters become those of the capitalistic system itself. By means of the combination of dream control, religion and capitalism into one sole method of control, the Drummers and the Matricians are perennially trapped in a cyclic imprisonment; awareness remains a necessary element to maintain the balance within the capitalistic system in the sense that the masses require a minimum amount of consciousness, a stimulus that triggers petty desires in people and which will, in the one hand, compel them to increase their consumption and, on the other, make them more productive since they need to maintain their purchase power to fulfill their trivial desires.

In this sense, rebelliousness also stands as an essential constituent of capitalistic control in that it provides people with hopes and illusions for a better life, whereas

dreams (with both connotations, dormancy and desire) are turned into the perfect vehicle of indoctrination and manipulation. “The goings-on in most dreams,” Andy Clark states, “would cause us (were we awake) to suspect trickery or to question our sanity, in our dreams we simply accept them as normal, as real life. One way to keep people ‘under control’, as Morpheus puts it, is to keep them (in this specific sense) *out of (self-)control*” (Clark, 2005: 178 emphasis original) .

The use of computer technology then instigates both physical and mental passiveness and so becomes a capitalistic and patriarchal method of control. Computer technology thus entails the ultimate fantasy of power and agency, and although technology also provides alternative paradigms to counter oppression, the users of computer networks and nanotechnology inexorably undergo patriarchal domination as these systems constitute the very element of masculine mastery that engulfs and obliterates the sense of individuality and free-will. “For their male users,” Dani Cavallaro explains, “computers are to be possessed, to be penetrated and overpowered. [...] On the one hand, technology is viewed as a kind of magical mirror capable of multiplying human powers *ad infinitum* and of reflecting humanity in an idealized form; on the other, technology is associated with the engulfment of the human by the non-human,” e.g. cyborg technologies and cyberspace (Cavallaro 2000: 131, 28 italics original).

In this sense, *Snow Crash*'s raft people, Vonnegut's Martian soldiers, *Dark City*'s dwellers, the Matricians and the Drummers are all depicted as passive subjects, enslaved by computer technology in need to break such impassiveness by any means, including personal struggles, external aids, subversive literature and mass upheavals. Although trapped within capitalistic systems of oppression, these characters all make use of technology to counteract the deleterious burden of patriarchy, to free their

dreams from manipulation, and to construct a posthuman state based on evolution and progress.

I.3 The feminine spheres of *The Diamond Age*: complexity behind female history and the new educational paradigms

I.3.1 Oppressed motherhood: the noxious influence of technology and patriarchy on reproductive issues

As noted, *The Diamond Age*, a genuine sample of postcyberpunk literature, undergoes a an evolutive process that ranges from the classic cyberpunk dystopian scenarios to the new paradigms regarding poscapitalism, posthumanism, and social pogress, all of these associated with the benefits brought about by technology. Likewise, the female circles of the novel experience a considerable evolution, evinced not only by Nell's coming-of-age or Miranda's metamorphosis, but in that the whole female domain appears to emerge from the dark atmospheres inherited by cyberpunk into the light of social and technological progress.

On the other hand, the male spheres, as observed, are enmeshed in an ideological mêlée that mirrors the behaviors of modern institutions and also rancid conflicts, including technological supremacies, mutual domination, monopolies, messiahships, and capitalist battles. In contrast, the female circles, apparently free from class struggle and ferocious ambitions, focus rather on socially concerned programs, spiritual labor and mutual care. Yet, a dystopian atmosphere that involves women also forms part of the complex structure of the novel, from which a debased, disturbed figure emerges as the counterpart of the heroines that will transform the state of affairs: Tequila, Nell's mother.

Tequila, Nell's mother, is depicted as a passive supporter and promoter of patriarchal culture and male supremacy, and, though helpless and cornered by such ideologies, she is portrayed as gender-determined and socially apathetic. Her name is associated with festivity and Mexican slovenliness, and her only goal is, apparently, to establish relationships with diverse noxious lovers, the harbingers of patriarchal dominance, a group of faceless, unremarkable individuals whose feeble identity seems to be linked to the communal set of beliefs and prejudices of the slums:

But Mom [Tequila] broke up with Brad; she didn't like craftsmen, she said, because they were too much like actual Victorians, always spouting all kinds of crap about how one thing was better than another thing, which eventually led, she explained, to the belief that some people were better than others. She took up with a guy named Burt who eventually moved in with them. Burt explained to Nell and Harv that the house needed discipline and that he intended to provide it, and after that he spanked them all the time, sometimes on the butt, sometimes on the face. He spanked Mom a lot too (170).

Both for the Victorians or for the petty authority of these Thetes (tribeless), the struggle for supremacy and the establishment of sovereignty remains associated with brute force, indoctrination or propaganda associated with weaponry, cyberware (like Bud's) or physical brawn. This doctrine is drilled into the mind of children by (step) parents, whose patterns are emulated in the playground where dominance and bullying become the methods of subjugation:

Nell played against Kevin. Kevin was a big boy who was proud of his bulk and his strength, and his philosophy of tetherball was winning through intimidation. [...] Nell knew that Kevin's mom had lived with a lot of the same guys that Nells' mom had lived with; he frequently sported black eyes that he certainly hadn't gotten on the playground. [...] Nell had always been afraid of Kevin. But today when he wound up for his big serve, he just looked silly (170-171).

Tequila's relationship with men contrasts with that of Nell's; while the former crumbles under the pressure of patriarchy, the latter analyzes its methods so as to undermine them from their foundations: "Nell had watched Kevin use this tactic

[bullying] with other kids, and she knew that it only worked because usually the kids were too scared to move Kevin was shouting things at her, calling her a cunt and other words, but Nell didn't hear it and didn't care. [...] Nell dodged him and tripped him again" (171). The focus of the novel is, nonetheless, not in Tequila herself, who is just a secondary character, but on men's arrogation of female's resources, including their psyches and bodies. In this regard, women undergo the alienation and misappropriation of their qualities by means of patriarchal procedures, a process that resembles that of a bourgeois seizing the laborer's product, by dint of indoctrinating both the worker and his product with male ideologies, as noted by Dona Haraway:

Perversely, sexual appropriation in [Marxist] feminism still has the epistemological status of labour; [...]. But sexual objectification, not alienation, is the consequence of the structure of sex/gender. In the realm of knowledge, the result of sexual objectification is illusion and abstraction. However, a woman is not simply alienated from her product, but in a deep sense does not exist as a subject (1991: 159).

The initial stages of the description of the female circles are overtly shaped by the presence of aggression, defilement, rape, indifference ignorance, and contempt toward women (misogyny), exemplified by the behavior of Bud and Tequila's lovers, who show a blatant disdain toward female sexuality: "Bud's relationship with the female sex was governed by a gallimaufry of primal impulses, dim suppositions, deranged theories, overheard scraps of conversation, half remembered pieces of bad advice, and fragments of no doubt exaggerated anecdotes that amounted to rank superstition" (11). This cyberpunk-like sexual reckoning of women can also associated with their representation (through their obscure genitalia) of an insatiable void, the pristine enigmatic place whence life came and whither it will return, all of which constitutes a phobia that compels men to the conclusion that women are to be possessed and oppressed, and that they represent an inimical force related to weakness and

castration, the opposite of strength and manhood. A similar condition is described by Barbara Creed in her analysis of horror films:

What is common to all these images of horror is the voracious maw, the mysterious black hole which threatens to give birth to equally horrific offspring, as well as a threat to incorporate everything in its path. This is the generative archaic mother, constructed with patriarchal ideology as the “primeval blackhole”. This, of course, is also the hole which opened up by the absence of the penis; the horrifying sight of the mother’s genitals – proof that castration can occur (2000: 130).

Diverse sf narratives, including *The Diamond Age*, denounce a traditional posture that correlates the feminine, associated with weakness and with the vacuum women represent as procreators, with castration and death. This is translated into a narrative about brazen masculine violence towards female flimsiness derived from men’s impotence to create life on their own without the need of women. In this regard, by the end of the novel, the army of the Fists, halfway through rebellion, takes Nell as a prisoner and rapes her, all of which amounts to a description of macho prejudices that equate Western civilization with weakness, lassitude and the feminine, insofar as the Chinese react against the West in a violent manner because of its “softening feminine influence” which goes against their strict historical standards:

[Nell] supposed it was inevitable that, in due time, these men [the Fists] would take those liberties with her that have ever been claimed as angary [compensation] by irregular fighting men, who have willfully severed themselves from the *softening feminine influence of civilized society*, with those women who have had the misfortune to become their captives (434, emphasis added).

Stephenson’s concern about the misappropriation of women’s reproductive capabilities and the dispossession of their essence is allegorized by the typification of Tequila as a despoiled figure whose procreateness has been misappropriated by men, her womb invaded and occupied by patriarchal domination. In this regard, men attempt to exert control on reproduction basically in two different ways, either by

usurping feminine reproductive powers, or by creating ‘artificial wombs’ that will allow them to procreate without the need of a woman. Through technology, men try to ‘engender’ artificial life and obtain their ‘independence’ from women, although most examples of this (which include robots, AIs, androids and golems) end up creating monstrous figures such as Frankenstein’s creature, the hideous alien of Scott’s eponymous movie³¹ (born from a crew-man), or the slaughtering robots of the film *Hardware*. In this manner, men show what Samantha Holland calls ‘womb envy’: “There is a clear history of (male) desire to create life without the mother – from Adam and Eve and *Metropolis* [...]. This ‘womb envy’ is apparent in the cyborg film where narrative structures juxtapose the question of biological and technological reproduction” (1995: 167). It is then by means of technology that Tequila is deprived from her reproductive capabilities (by means of nano-contraceptives), an act that, under feminist views, snatches her nature away, since, by means of nanotechnology, a representation of patriarchal authority, her procreative status is rendered null: “She [Nell] knew [...] that when Tequila got pregnant with Nell, she had been using something called the Freedom Machine –a mite [nanosite] that lived in your womb and caught eggs and ate them” (47). The way for patriarchy to deny Tequila of her reproductive capabilities is not by preventing her to bear physical children, but by constraining her financial mobility in order to hinder her realization as a woman and the possibility to raise a proper family. We cannot know whether Tequila desires a baby or not, but we do know that her circumstances are limited by the patriarchal system that inhibit her progress.

³¹ In multiple Sci-fi films such as *The Terminator*, *Alien* or *Tetsuo* a machine or a corporate monster is given the task of eliminating a feminine motherly figure, a way to prove man’s intention on taking over reproduction.

The overwhelming influence of masculine ideologies is once again associated with an invisible technology which, combined with, for instance, the Matter Compilers' intention to replace hand-made items (including eventually forging human beings), stands as the ultimate intent to subdue women's powers. Eternal rivals and enemies of men, the procreative attributes of women challenge male schemes and debunk their patriarchal charades by means of narratives that show either the oppression of women or paradigms that undermine male ideologies: "Feminist SF writers create metafiction, fiction about patriarchal fiction, to unmask the fictionality of patriarchy" (Barr 2005: 144). Thus, Tequila represents a cyborg of a kind whose nano birth-contraceptives disclose her as a traitor to natural reproduction, although, at the same time, she stands as a female figure who takes advantage of male technology to protect her own self. She utilizes nanoware (the Freedom Machine) to ironically 'free' herself of her product and, in this way, she reinforces male domination, and, implicitly, endorses the power of patriarchal machines such as the Matter Compiler, a device that substitutes the creating power of women by 'engendering' artificial objects. As a result, "the projected manufacture by men of artificial wombs, of cyborgs, which will be part flesh, part robot, of clones -all are manifestations of phallogotechnic boundary violations" (Daly 1990: 71). It is not Tequila's free decision to have or not descendants; what we know is that the technological and socio-economic circumstances around her (all controlled by men) influence her development as a woman and thus obliges her to make decisions she might not be making if she had free-will.

While Tequila's support of patriarchal domination is left behind in the narration, the miraculous birth of Nell by eluding the killer-mite symbolizes the gloating triumph of nature over machines as well as a staunch resistance to patriarchy

even before birth, as if challenging were an innate trait of some women. Nell's natural defiance toward male oppression constitutes an element required by patriarchy to buttress their own sense of authority, what Foucault understand as both an opposition and a prop of power, and what Tim Jordan addresses as a necessary means of control: "power understood as a possession needs resistance. [...] Power is a negative phenomenon; it forces actions that are against the will of someone. [...] If power concerns the ability to overcome resistance then stable patterns of power can be equated with forms of domination" (1999: 10). By resisting power even from birth, Nell acknowledges its proportions and scopes, and contests it by acquiring social consciousness and education, a type of upbringing that her biological mother fails to provide, thus proving that social determinism is relative to the subject and the circumstances.

In this regard, Nell declines Tequila's biological reproduction and her lame capability to educate in favor of a holistic education, a modern type of technologized motherhood, which acknowledges the fact that "science-fictional plots articulate deep-seated anxieties about women's reproductive functions by toying with the idea that male-dominated forms of *technological* reproduction may supplant *biological* reproduction" (Cavallaro 2000: 116 emphasis original). In this manner, the set of anxieties and apprehensions that constitute the initial setting of *The Diamond Age* are eradicated by means of elements such as education and beneficial technology which bring about a more favorable backdrop for both women and men in which the power that created and utilized machinery for oppressive purposes is deposed for the sake of the construction of a biopoliticized social framework.

1.3.2 Miranda, the holistic tutor: the cybernetic paradigm of motherhood

One of the classic plots in fairy tales involves a protective figure who takes over the role of an absent parent that mentors, advises and guides children through different ordeals. Stories such as those of Cinderella, Sleeping Beauty or Pinocchio present a dualistic form of parenthood constituted, on the one hand, by a biological progenitor and, on the other, by a foster parent (a godparent) who provides mystical edification, clarifies ethical issues and exposes the flaws of social structures. Bruno Bettelheim describes this recurrent narrative in term of rough folklore by stating that children, with the advent of modern times,

no longer grow up within the security of an extended family, or of a well-integrated community. Therefore, even more than at the times fairy tales were invented, it is important to provide the modern child with images of heroes who have to go out into the world and by themselves and who, although originally ignorant of the ultimate things, find secure places in the world by following their right way with deep inner confidence (1976: 11).

In this sense, Tequila, Nell and Miranda body forth a similar pattern, a triadic hub in which the socially-determined mother fails to provide for her daughter, and unconsciously relinquishes her duty in favor of a foster e-mother, and, in this way, the novel characterizes Nell as more dependent on intellectual nourishment than on physical links with her biological mother. Along with Nell, Miranda, her fairy godmother, embodies the fundamental principles of postcyberpunk by transforming the gloomy atmospheres of cyberpunk into a set of modern paradigms in which female intuition is combined with rationality and altruism. As Erich Fromm's psychological theories reveal, Miranda represents the selfless caregiver whose goal is the "unconditional affirmation of the child's life and his needs, [... instilling] in the child a love for living" (1956: 49), and, perhaps along with *Islands in the Net's* protagonist Laura Webster, she constitutes a good example of a 'socialized' mother in

cybernetic narratives. The model proposed by Miranda integrates intuitiveness and highly skilled talents (such as spontaneous responses, intelligence and didactics) with protective care and thus constitutes a propelling force that empowers and catapults her foster offspring onto diverse urban rites of passage. As Fromm predicts, mothers would forfeit their prerogatives in favor of their descendants, and, likewise, Miranda's promising career is sacrificed in an attempt to commence a visionary ideal society by nurturing Nell and by making the most of the state-of-the-art devices that influence her own life: "“She did it,’ Carl Hollywood said, ‘by sacrificing her career and much of her life. It is important for you to understand, Your Grace [addressing Lord Finkle-McGraw], that she was not merely Nell’s tutor. She became Nell’s mother’” (337). The threefold axis embodied by Tequila, Nell and Miranda involves a natural process of selection in which the most fitting figure assumes the role of instructor though not the biological parent. In this manner, a composite process of education underlines the need to blend the cultural, the psychological and the humane in order to supersede biological constraints and social determination:

Motherhood might seem to be both embodied and natural, a biological fact of nature, into which technologies might intervene [...]. Reproductive technologies offer a focus on motherhood and the mother-child relationship which includes the social and cultural relations which inform our understanding of motherhood: of good and bad mothers, of who is allowed to be mother and who is not, who is allowed to speak and who has the power to make decisions (Woodward 2000: 162).

The reproductive and educational resources shown in *The Diamond Age* constitute a proposal not only within social Darwinism, but as a holistic social model that stresses the need of cutting-edge technologies, intelligence, intuition, information and the control of emotions in order to create a posthuman version of motherhood, a ‘post-motherhood’. Miranda is a postcyberpunk cyborg who makes use of cyberware to

improve her capabilities as a ractor; this will eventually allow her to become the spiritual, maternal figure that will raise Nell in a holistic manner. In this way, Miranda becomes the obverse of *Neuromancer*'s female protagonist, Molly, a bodyguard who pays for her cyber-implants with the money she earns as a prostitute and whose muscular enhancements are just capitalistic consumer objects. In her early life Molly is involved in sex trade as a 'meat puppet', a whore (moll) whose identity is obliterated by having a makeshift personality implanted in her mind, while her body is manipulated to fulfill the kinky fantasies of a customer. As opposed to Miranda's biopoliticized use of cyborg technologies, Molly's enhancements bear the burden of corporate ideologies and of male domination.

Whereas Molly, "a 'moll' out of an 1940's *film noire*"³² (McCaffery 1994: 15), leases her feminine body to capital control –her mind separated from her physique– in order to become a confronting hyperpowerful bodyguard who protects corporate CEOs, Miranda's posthuman background resembles that of a Renaissance figure, a multi-faceted "maid-of-all-work" and a job as "a governess for five years" (77). With her life savings she acquires a kit of avant-garde embedded nanoware that creates an interfaced 'tat-grid' (an nano-tattoo: Ractors all have 3D body scanners built by a lattice of nano-transmitters embedded in their skin so that motion is transferred to an avatar and thus acting becomes ultrarrealistic as in current CGI films); Miranda's 'tat-grid' allows her to work as an experimental ractive. While Molly evolves from a prostitute to a mercenary, Miranda transmutes from a versatile nanny into a posthuman mother who guides Nell to maturation and who finally designs the Seed. Miranda's first stages as a social subject are more spiritual *per se*,

³² According to the OED, Moll: noun, informal: **1** (also **gun moll**) a gangster's female companion; **2** a prostitute.

and, later on, as a Victorian that leads the Drummers to their final quest for the Seed, she will embody the blend of the East with the West, masculinist technology with feminine skills, and the material with the intangible, all of which constitutes another type of panacea that attempts to solve the social concerns of the novel. “Miranda may have joined the Drummers to find her lost daughter,” Kathleen McClancy suggests, “but she has become the culmination of their attempt to create a technology that would put an end to society as she knows it. Within her body is the beginning of a revolution” (2006: 79). By taking advantage of her unique position as a multitalented woman, Miranda, more than Nell’s tutor, will become the mother of a new social order by means of rendering the Seed technology with which she will challenge Victorian monopolies and patriarchal domination: “this data had been infused into the wet Net in the course of the great orgy, and all of it was going to be dumped into Miranda, whose body would play the host to the climax of some computation” (461).

Among the socialized projects that involve Miranda, her transformation into a paradigmatic cyborg encompasses manifold features that allows her to metamorphose into a variety of contesting roles, by which she will oppose patriarchal hierarchies not by means of augmented musculature (as in cyberpunk narratives), but through her enhanced abilities, her feminine intuition and her thought-provoking skills. This constitutes a critical vision prompted by her unique composite nature that involves a technologized way to approach the essence of women as well as a cybernetic account of the way female experiences assemble in a new social arrangement as Anne Balsamo proposes:

female cyborgs do more to challenge the opposition between human and machine than do male cyborgs because femininity is culturally imagined as less compatible with technology than is masculinity. [...] Female cyborgs [...] are culturally coded as emotional, sexual, and often, naturally maternal [...]. Technology isn’t feminine, and femininity isn’t rational. [...] The critical vision assembles woman

as cyborg from bits of pieces of women's experiences that have already been out there, a reassemblage that sustains a critical perspective of technological/scientific/cybernetic discourse (2000: 150, 156).

In this regard, Molly's militarized implants, for instance, resemble Bud's inserts in that they enhance warfare skills, endorse patriarchal domination and cultivate the concept of masculinity³³, all of which turns her into a classic dystopian cyborg. On the other hand, Miranda's posthuman cyberware creates an ultra-realistic copy of her that serves as an avatar by which she can view herself from the outside and learn from her disembodied experiences inside the ractors' network. By scrutinizing her own 'other', her virtual self, she discovers her intuitive and motherly capabilities and acquires a set of postmodern prospects gleaned from the roles she plays at the virtual settings where she is employed: "for the first time ever, she was watching another person [her digital self] move exactly as she moved" (80). This cyberware allows her not only to jack into the ractive network, but to create an extreme accurate map of her own physique and her whole persona, thus expanding not only her sensorial apparatus, but the consciousness resulting from the external recognition of herself, a composite, interactive and holistic description of her inner functioning, her physique and her psyche:

Miranda was looking at a black wall speckled with twenty or thirty thousand individual pricks of white light. Taken together, they formed a sort of three-dimensional constellation of Miranda, moving as she moved. Each point of light marked one of the 'sites that had been poked into her skin by the tat machine during those sixteen hours. Not shown were the filaments that tied them all together into *a network—a new bodily system overlaid and interlaced with the nervous, lymph, and vascular systems* (79, emphasis added).

³³ Yvonne Tasker describes action cinema as 'muscular cinema' and understands that masculine traits do not exclusively belong to men but to anyone endorsing muscular power as a form of domination, and thus coins the term "Musculinity" [that] indicates the extent to which a physical definition of masculinity in terms of a developed musculature is not limited to the male body" (1993: 3). "The masculinisation of the female body, which is effected most visibly through her muscles, can be understood in terms of a notion of 'musculinity'" (1993: 149).

Miranda, an innovative maternal figure whose reproductiveness is situated more on the side of the inorganic than into the natural, embraces a set of educational and spiritual traits that assemble the profile of a trailblazing mother who serves as a role model that blends technology (or rationality) and intuition. In this manner, Miranda also crosses religious thresholds by rejoining (*religare*, reunite) the essence of technology –an aid to fragile mortals– with her nourishing abilities and with the spiritual contours of humanity.

Thus, the cyberpunkish attributes of Molly underlined by her own name, “an ex-moll”, as noted (Olsen, 1995: 287), stand as a set of violent features that contrast with those of Miranda, whose name³⁴ relates to her benign nature, worthy of admiration, a paronym of the term ‘mirror’ by which Stephenson ensembles a valuable blend of high-tech, posthuman consciousness and the natural instincts of a nurturing mother. In this way, Miranda becomes a cyborg that, by acknowledging the nature of the artificial and the natural, distills an inspiring feminine behavior that defies the mechanicalness of traditional patriarchal paradigms. In this regard, Jennifer González identifies a new pattern derived from both the mechanical aspects of a cyborg and the organic traits from which a new type of postmodern awareness originates. “One can consider any body a cyborg body,” she writes, “that is both its own agent and subject to the power of other agencies [...] an *organic cyborg* can be defined as a monster of multiple species, whereas a *mechanical cyborg* can be considered a techno-human amalgamation [...] both types of cyborgs [...] are

³⁴ From Latin *Mirandus*, “to be admired” (Random House Dictionary, 2010). From “*mirandus* ‘worthy to be admired,’ gerundive of mirari ‘to admire’” (Douglas Harper Dictionary, 2010).

metaphors for a third kind of cyborg – a cyborg consciousness (2000: 58, emphasis original).

As an entity that is both independent and interdependent of external agency, Miranda, while still a cyborg, emerges as a posthuman mother (a post-mother, as mentioned) that personifies the return to the sacred, and, in this way, she becomes a ‘goddess’ that reconnects the true aim of technology (the amelioration of the status quo) with the evolutive essence of humans. Yet, at the same time, she manifests herself as a disturbing entity challenging patriarchal authority and virile power, since, by merging technology with the feminine, she grows into the threatening ‘other’, the shadow of cyberpunk’s female hyperpowerful, militarized cyborg who once challenged men in the physical spheres, and who now becomes an even more distressing personage that makes use of her enhanced consciousness to debunk male’s fallacies. Miranda then is a defier who employs technology to grapple with those who created it (men) in order to subdue minorities such as women or foreigners. In As Andreas Huyssen’s words:

“As soon as the machine came to be perceived as a demonic, inexplicable threat and as the harbinger of chaos and destruction...writers began to imagine the *Maschinenmensch* as woman. ... Woman, nature, machine had become a mesh of signification which all had one thing in common: *otherness*.” [...] Similarly, the machine itself was seen to threaten the hegemony of white male authority because it could as easily be used against a government as for it; autonomy was indeed its terrifying potential (Huyssen in Halberstam 1991: 444, emphasis added).

By the end of the novel, Miranda joins the Drummers in a desperate attempt to locate Nell, an act that will render the ultimate creation of the Seed for which she turns into the central figure of a postmodern informational orgy in which billions of nanosites will be deposited in her body. Miranda thus combines her nurturing capabilities to handle large amounts of heterogeneous information by which she embodies the

principles of swarm systems as the basis of posthuman evolution. She relinquishes biological reproduction in favor of an intellectual posthuman motherhood, the final act of self-detachment that relates to the acknowledgement of the importance of the social and the familial for over the individual, a posture that contrasts with that of cyberpunk whose focus is on the survival of discrete subjects. Miranda's self-immolation constitutes a way to recognize the new emphasis on the continuity and endurance of social structures and of the cultural identities of the peoples, paying especial attention to the generation of knowledge and the processing of information, an evolutive procedure endorsed by the feminine characters of *The Diamond Age*, who, far from utilizing technology for oppressive purposes, suggest new ways to fuse the benefits of computer technology with the humanistic perspectives of women. In this regard, the intellectual and physical support provided by feminine figures like Miranda proposes a paradigm in which nourishment stands for continuity, a process that regards the free position of women as the key to develop socialized projects that propel social evolution by means of a humanistic (never detrimental) use of technology. The female contribution to the scopes of cyborg and cyberspace technologies is the crucial difference between *The Diamond* and *Snow Crash* in which posthuman technologies are regarded as a catastrophe derived from the patriarchal domination of corporations.

Hence the Seed constitutes not only the socialized, antihierarchical, antimonopoly contestation toward European patriarchy, but also underlines the need for feminine philosophies like the one embodied by Miranda in order to hatch evolutive technological projects that require a re-unification of the human (if not spiritual) with the material, of the ideological with the mechanical, of the passive and the active. In this regard, radical feminism demands freedom from reproductive and

technological impositions, since “fundamentalist [feminist] narratives [...] fix another particular historical position as eternal – eliminate the male-dominating technologies, and restore woman’s reproductive bodily integrity. The radical feminist version of this narrative configures natural maternity negatively as freedom from technological intervention” (Farquhar 2000: 215, my italics). Nevertheless, Stephenson’s proposal goes beyond these radicalisms by suggesting that technology should be influenced by the feminine and not inversely. Stephenson thus spurns mechanical forms of maternity in favor of a holistic, spiritual kind of education, nourishment and guidance that benefit from technology and which stand, altogether, as a social model of massive edification and cultural evolution, as well as a challenging system to patriarchal forms of domination and ideological control.

Yet, by prompting the inclusion of the feminine within technology, Stephenson is also fortifying the power of machinery as the main instrument of patriarchy to retain its dominion; by incorporating aspects that technology did not encompass before, male authority strengthens its commanding power insofar as technology is being perfected by incorporating new traits whose purpose is only to make it more efficient and oppressive. By attempting to provide a new social paradigm (as it happened with Judge Fang), unwittingly, Stephenson ends up supporting the power of patriarchy by providing new ideas that only safeguard its integrity and supremacy.

Miranda’s natural talent, her acquired cyberskills, her vision and her role as motherly educator sets her forth as an idealized, holistic entity, a perfect candidate not only to serve a social purpose, but as a ruler, a posthuman, technologized visionary whose gender or class are surpassed by her cultural aptitudes: “Albeit ethnic and regendered, the cyborg partakes of a vanguardism by which race and even gender are

occluded by education, class privilege, and/or talent” (Lindberg 1996: 57). In this manner, free from social ambitions and preoccupations about dominance or rivalries, posthuman females seem a viable alternative to challenge the millenarian power of patriarchies schemes. Thus, feminine educated and educating figures embody new proposals to the socialized, technologized polities that desperately seek for preservation and evolution, opposing destruction and dominion. The altruistic, philanthropic motherly figures of *The Diamond Age* then constitute the perfect model, the blend of nourishing attitudes with technologized visions capable of modifying intensely ingrained atavisms such as male supremacy.

I.3.3 The role of Nell and the Primer in the consolidation of postcyberpunk: the evolution of cyberspace and socialized forms of education

Snow Crash's metaverse, a typical though renewed version of cyberpunk's cyberspace and perhaps the forebear of the Primer, is a classic simulated atmosphere in which its users acquire a vast capacity of virtual motility although their physical bodies remain immobile. Thus, the minds of the people who jack in are enhanced and controlled at the same time, and the information they receive is, on the one hand, augmented and, on the other, bowdlerized, all of which turns the metaverse into a classic network that fosters the transmission of financial data, political propaganda and noxious viruses, representing also a locale for communication and socializing: "So Hiro's [the protagonist] not actually here at all. He's in a computer generated universe that his computer is drawing onto his goggles and pumping into his earphones. In the lingo, this imaginary place is known as the Metaverse. [...] The people are pieces of software called avatars. They are the audiovisual bodies that people use to communicate with each other in the Metaverse" (Stephenson, 1993: 23, 33).

The Primer-Ractive network, on the other hand, constitutes a step forward in the evolution of cyber-environment, since the attention of the user is never fissured, and the intensified Cartesian opposition, active-mind vs. passive-body (a classic narrative motif in cyberpunk), is discarded in pursuit of an undivided set of perceptions. The Primer network merges the virtual and the physical by means of a gadget (the interactive e-book) which performs as a psychopomp³⁵ that carries

³⁵ Classic archetypes in Greek mythology, psychopomps acted as conveyors of dead souls to the afterlife. In Jungian psychology a psychopomp interconnects the conscious with the unconscious. In the same fashion, these electronic contrivances (as the Primer or Gibsonian consoles) serve the purpose of

information and experiences back and forth from the database to the user and vice-versa. The type of interconnection promoted by the Primer sparks a ‘here-and-now’ type of awareness (as in Gestalt psychology) that creates a holistic ambience whose purpose is the enlargement of consciousness and the amelioration of educational techniques.

From the outset, the Primer-Ractive network makes use of a peculiar method of education/entertainment that recreates reality in a more accurate fashion than the actual. In the Ractive version of this hyperreal simulation, people can partake (as long as they pay for it, as this is a business not a service) in the reenactment of historical scenes, in interactive theater performances or in mere social events, all by means of avatars that resemble those of the metaverse. In this sense, *The Diamond Age* Primer-Ractive network recreates historical scenarios with an unrivaled perfection, comparable only to the flawless precision of Hollywood’s period pieces, all of which constitutes an iconographic replica of our world, a representation that substitutes the real by a magnified copy, a hypotyposis (a lifelike description of a thing or scene) that resembles Baudrillardian descriptions of the usage of hyperreality as a manipulation of perception:

Concurrently with this effort toward an absolute correspondence with the real, cinema also approaches an absolute correspondence with itself - and this is not contradictory: it is the very definition of the hyperreal. *Hypotyposis and specularity*. Cinema plagiarizes itself, recopies itself, remakes its classics, retroactivates its original myths, remakes the silent film more perfectly than the original, etc.: all of this is logical, the cinema is fascinated by itself as a lost object as much as it (and we) are fascinated by the real as a lost referent (Baudrillard 1994: 47 emphasis added).

connection, interfaces between the virtual and the concrete, the digital and the analog, the collective and the individual. See Jung 1968.

These Baudrillardian postulates, abundant in the reality-ravenous settings of *The Diamond Age*, include, as a result of the use of hyperreal techniques, a scrutiny of behaviors and human traits, an epistemological approach to the human psyche (and to life itself) through the contact of a character with the views of the ‘other’. This process, deeply founded in computer and nanotechnology, makes use of theatricality and interaction within a vast and financial virtual geography that dispenses with the need of the large spaces traditionally needed for human interplay. In this manner, the optimization of resources allows for the expansion of didactic possibilities that will augment the intellectual growth of these characters: “A major perceived advantage of the Internet and cyberspace is that using it changes certain spatial requirements—there is no need to share the same physical space in order to work or interact, no need to apply (or wait) for visas to work in a different nation—rendering the fantasy of the cyborg posthuman more visible” (Niu 2008: 88).

Computer technology then not only fosters interconnection and communication, but the acquisition of knowledge itself, as computers intensify the performance of actors and customers, focusing on cognitive plots and on intellectual details that aid the participants in earning a full grasp of a defamiliarized situation, an experience that will refine their approach to unusual settings and traditions: “The computer morphed her [Miranda] into the face of an adorable young woman whose face and hair looked typical of what was current in London at the moment; she wore the uniform of a British Airways ticket agent. ‘Good evening, Mr. Oremland,’ she gushed, reading the prompter. The computer dispensed it into an even perkier voice and made subtle corrections in her accent” (108). Computers aid both the performer and the client to enhance their paraphernalia in order to make everything more didactic,

clear and informative; by the perfecting of the roles they play, these people make the most out of these educative experiences.

With a mixture of modern technology and the carnivalesque resources of the Renaissance and the Baroque periods, people's eager explorative spirit (related to a Victorian ethos) is exploited by means of theatrical procedures that allow ractors and costumers to act, pretend and transform themselves into different personas, confronting figures that represents the 'other' either for themselves or for their peers. Their objective is to learn from different *modi vivendi* and from defamiliarized settings that challenge and unsettle these people's views. By infiltrating unknown territories, the users of the ractor network place themselves in vantage points that enable them to explore 'exotic' locations, unconventional customs and mysterious atmospheres, quite in the same manner as the late 19th century English photography exhibitions that focused on extravagant ambiences such as the Far East or urban slums. By means of these exhibits, the snobbish higher strata of London and Paris, for instance, had access to dangerous worlds and exotic settings without risking their integrity. "Exploiting the picturesque appeal of urban poverty," Nancy Armstrong states, "any number of photographers made slum life safe for middle-class observers" (1999: 97). Same in the Ractive network, the costumers and ractors are free to wander around these perilous and risky atmospheres without the threat entailed by the need of the physical presence. A similar system is used in today's Internet environment *Second Life*, a locale where people interact, socialize and communicate via a controllable avatar.

In the same manner, during carnivals in the Middle Ages, the Baroque and the Renaissance, diverse social classes mingled in the anonymity of masquerades in which people concealed their identities under flamboyant costumes that provided a

sense of safety and freedom while they sauntered and gallivanted among other socio-cultural spheres. “All were considered equal during carnival,” Bakhtin affirms. “Here, in the town square, a special form of free and familiar contact reigned among people who were usually divided by the barriers of caste, property, profession, and age” (1993: 10). The carnivalesque and theatrical techniques employed by the people connected to the ractor network allow them to acquire knowledge about lifestyles from ancient times or about the behaviors of unfamiliar strata. The reenactment of estranged circumstances, the contact with the ‘other’, stands out as an enduring method of cognition; the knowledge derived from firsthand experience (empiricism) seems then longer lasting and more intelligible than traditional lecturing at schools or book-learning (sheer theory). Thus, the distance and safety provided by the masquerades of the ractives allows for the involvement of the subject in the idiosyncrasy of others, and, by this, he becomes a ‘cross-classing’ flâneur (“If George Sand can become the *flâneur* by cross-dressing, making herself an invisible observer of city life, then I suggest that certain spectators, regardless of gender, are in the position of ‘cross-classing,’ as it were” (Highley 2001: 22)) with a privileged perspective that, from his seclusive hideout, enables him to visualize an unfamiliar setting through a cyber-peephole, a tiny eyeglass that provides the scope of a wide cognitive world. Sarah L Highley writes:

By shrinking invisibly into the inner city, [the spectators at the theater or other spectacles] become safe, invisible observers of this alien world—a metaphor of a world that would threaten them in reality. They are to the set what the flâneur is to the city, disguising their inappropriate station in life and *slumming in other clothes*. The effect is made all the more pronounced by its being an invented city, which defamiliarizes one’s experience all the more” (2001: 22, emphasis added).

The conjunction of theatrical representations and virtual environments is not new, Pat Cadigan’s 1992 classic cyberpunk novel *Fools*, describes a setting in which street

punks, digital assassins and memory junkies interchange their digital minds and take part in virtual performances. The book emphasizes the prominence of digital technologies in regard to the encounter with the 'other', and makes use of virtual theatricality to expose consumeristic doctrines and to broaden the characters' cognitive techniques. Through the confrontation with the 'other', these hackers attain a point of reference that enables them to assess their achievements and failures or even to admit their inadequacy to fulfill the requirements of economically hyperactive societies to which they belong:

In the old days, there were two kinds of actors: the ones who disappeared into their roles, and the ones whose roles disappeared into them. [...Sovay, the protagonist, was] too good at delving the layers of personality, identity. [...] *Give me a whole new life, give me somebody else's life because I'm sick of mine.* [...] There were plenty of sad cases walking around looking to hijack someone else's life and leave their own bleak existences behind [...]. It was easier to suck the mind out [...] and dump the rest in a cipher ward (1994: 93, 97, italics in original).

On the other hand, in *The Diamond Age* these thespian techniques are not only used to consolidate identity or become escape routes from bleak realities, but also to constitute a playful setting in which interaction stimulates introspection and cognition by means of information and defamiliarized scenarios all of which allows for a new epistemological model. The didactic model proposed by the ractors' network resembles that of Cognitive Science, a multidisciplinary theory that underlines the importance of diverse mental tasks (such as vision and memory) built from simple intellectual units which, altogether, emerge as interconnected knowledge. "Cognitive science," Varela et al propose, "stands at the crossroads where the natural sciences and the human sciences meet. Cognitive Science is therefore Janus-faced [...]: One of its faces is turned toward nature and sees cognitive processes as *behavior*. The other is turned toward the human world (or what phenomenologists call the 'life-world') and

sees cognition as *experience*” (1991: 13, emphasis added). Thus, behavior and experience become the key elements for cognition within the noetic, ludic performances of the ractive network, aided by what Shklovsky calls ‘estrangement’³⁶, a forceful didactic method that stimulates the identification of a subject with a challenging defamiliarized backdrop which will modify his worldview. In this regard, the estranged hyperreal methods of *The Diamond Age* are at odds with Baudrillard’s demonization of the hyperreal; yet, Stephenson’s didactic techniques stand as a serious model in which his immersive simulations combine tradition, educative resources and experience in an enjoyable infrastructure whose goal is to make knowledge more enduring and improve cognition. Miranda’s postmodern performances, for instance, all seem to make use of the hyperreal (aided by computer technology) in order to provide a more impressive and edifying experience:

She [Miranda] had been standing bids on Kate of *The Taming of the Shrew*, Scarlet O’Hara in *Gone with the Wind*, Ilse in an espionage thriller [... and] Rhea, a neo-Victorian damsel in distress in *Silk-Road*, an adventure-comedy-romance ractive set on the wrong side of contemporary Shanghai. She’d created that role, [... and] a good review had come in (“a remarkably Rhea-istic portrayal by newcomer Miranda Redpath!”) [...] Miranda had a reputation now (106).

Stephenson then proposes a postmodern, posthuman model for the construction of identity in which the self is accreted from a series of cognitive sources, bits and pieces of cultural information and patterns reproduced from diverse origins, all of which underlines Halperin’s notion that “information constitutes identity” (1998: 310). Stephenson’s endorsement of identity as a cultural compound contrasts with that of cyberpunk in which memory data is singled out to define personality. Yet, Stephenson’s view also recovers the idea that, like in cyberpunk, the postmodern

³⁶ Estrangement, defamiliarization or *ostranenie* (о с т р а н е н и е): the literary technique of exposing familiar occurrences in unorthodox manners. The contact of a subject with a defamiliarized situation constitutes a didactic method employed in film and literature (see Shklovski 1988: 10).

essence of contemporary societies brings about a dismembered and fractured sense of identity that generates bewilderment. This phenomenon is embodied by the Drummers' society which resembles the idea that "cyberpunk would have us believe that the selves it posits are indeterminate and fragmented, no longer unique, autonomous individuals" (Sponsler 1992: 637). The counterpart of this is the assortment of behaviors that the individual gleans from diverse models, and which he consolidates as his identity by means of social and technological maneuvers such as the hyperreal, cognitive simulations of the ractive network and the interaction with others' trends of thought. In this regard, Stephenson seems to support the view that "people experience *identity as a set of roles* that can be mixed and matched," which recognizes personality as malleable and influenced by the environment. Likewise, "Robert Jay Lifton has called [identity] *protean*. Kenneth Gergen describes its *multiplication of masks* as a saturated self. Emily Martin talks of the flexible self as a contemporary virtue of organisms, persons, and organizations" (Turkle 1995: 180, emphasis added). For Stephenson, as for Bear as we'll see later, personality is a composite derived from ancestral inheritances and from the behavioral interaction with other people.

Stephenson's description of identity as an alloy of cultural elements derives from cyberpunk's notion of the interconnectivity of the postmodern fundamentals of cyberspace, an assemblage that underlines the collective nature of modern societies and that signals globalization as a new component of culture. The mathematical essence of cyberspace and the *intertextual* reciprocity of the elements that take part in a simulation like the ractive network indicate that an individual is made from a multiplicity of intellectual attributes, social skills and the mathematical precision of human nature. Traditional analyses indicate that, in cyberpunk, identity is fractured

and equal to mathematical data, but more recent critiques insinuate a new approach to this issue, like that which asserts that Gibson's masterpiece

Neuromancer also suggests that much more dangerous than this disunified subjectivity is the attempt to *deny multiplicity* and to hide behind some apparent unity. [...] Idealistic claims about the power of online discourse to lift participants out of every day roles and to give them an *appreciation for other identities* echo traditional humanist belief in the power of literature to expand human understanding; recognition of the *intertextual*" (Punday 2000: 204, emphasis added).

Likewise, it is by means of a cognitive simulation such as the Ractor's network in *The Diamond Age* that identity obtains its constituting sources, a historicist-humanist interaction that allows the participants to recreate an atmosphere where pretension and heuristics contribute to the mastering of different cognitive techniques, a proposal explored, for instance, in the 1993 film *Groundhog Day* in which repetition and error constitute the basis for the refinement of skills and awareness, as opposed to the fruitless reiteration of purposeless daily activities, like those Deleuze condemns by denouncing that "repetition as a conduct and as a point of view concerns non-exchangeable and non-substitutable singularities" (1994: 1).

The cognitive processes of the ractive network, a combination of pretension and heuristics, aim at refining the quality of mimicry, the details of costumes and props that play an irreplaceable role in the entire activity of perception and awareness derived from the hyperreal reconstruction of the socio-historical. In this manner, these recreations make use of computer technology to emulate repetitive atmospheres where repetition will render perfection, like the methods described in *Groundhog Day*, in which, for instance, Bill Murray's only repetitive focus is on seducing Andie MacDowell until he succeeds. In *The Diamond Age* heuristics (trial and error) is identified with a critical revision of history (embodied by Finkle-McGraw's

perspectives for instance) and with intertextuality, all embodied by the digital interconnection derived from hyperreal simulations: “The casting agent, which was a semiautonomous piece of software, had assembled a company of nine players, enough to ract all the guest roles in *First Class to Geneva*, which was about intrigue among rich people on a train in Nazi-occupied France, and which was to ractives what *The Mousetrap* was to passive theatre” (108). Stephenson regards computer heuristics as a step ahead in problem-solving and, especially, as a reliable epistemological method that combines experience with trial-and-error techniques. In this manner, he equals the functioning of computers and networks with that of human cognition, an inheritance of empirical neurobiologists such as Maturana who make contributions to constructivist epistemology by approaching views that include, as noted, self-referenced knowledge, intuition and judgment. Like the empirical neurobiologists, Stephenson confides in the study of cybernetic procedures to describe the operativeness of the mind and vice versa, since he seems aware that “heuristics, or rules of thumb, form the integral core of human problem-solving processes. As we begin to understand the nature of the heuristics that people use in thinking the mystery begins to dissolve from such (heretofore) vaguely understood processes as ‘intuition’ and ‘judgment’” (Simon 1961: 12).

In this manner, the Ractor/Primer network is associated as much with heuristics as with the feminine, since women, in the novel, are continually associated with empirical knowledge obtained through cognitive staging, a set of circumstances that turns them into epistemological interfaces that reconnect humankind with the cognitive advantages of computers, simulations, staging and heuristics. Their dresses and disguises are thus associated with the exuberance of designs and fashions (in contrast with men’s only attire, a suit) while the act of dressing up constitutes another

heuristic method that intends to look for the precise garment that will render the correct results on stage. Women's garments have been continuously regarded as the basic elements of disguise designing, impersonation and pretention, as well as a way to please men by playing the roles they demand. Female costumes and outfits, initially designed to attract partners, are employed in these simulations as a source of sexual appeal, involving the use of feminine masks and veils, of mimicry and of the womanly tradition for weaving as part of these theatrical/educational methods. "Weaving is an automatic imitation of some bodily function already beyond the weaver's control," Saddle Plant suggests. The woman "is bound to weave a costume for the masquerade: she is an actress, a mimic, an impersonator" (1997: 24).

By weaving, women create and develop their mimetic skills; they tailor their own embellishing and eroticizing outfits in order to transmute into whatever they need, and thus attain their goals. Freudian theories link weaving and plaiting with penis-envy (the "horror of nothing to be seen" (Plant 1999: 114)), and, as controversial as it sounds, with shame. Likewise, women's beauty, charm and embellishments are associated with sexual inferiority, and thus, their primary target is the concealment of their genital deficiency, to which weaving constitutes this a type of feminine ur-technology that attempts to 'promote' womankind to the same level of men: "It seems that women have made few contributions to the discoveries and inventions in the history of civilization; there is, however, one technique which they may have invented – that of plaiting and weaving" (Freud 1986: 133). According to Freud, women's costumes evolve from the point of the disclosure of the utility of pubic hair to the counterfeit of it and the weaving of loincloths to cover their lack of manly genitals: "Nature herself would seem to have given the model which this achievement imitates by causing the growth at maturity of the pubic hair that conceals

the genitals. The step that remained to be taken lay in making the threads adhere to one another” (1986: 133). Thus, their first forgery is that of a sexually oriented artifact, an element that will compel them to acquire mimicry expertise, and, as Freud claims, the component of a disguise that acts not like a veil to the face but as a cover of genital absence. This preposterous theory does teach us that women acquired the skills for weaving (disregarding Freud’s initial ideas about the function of the woven item) which they perfected for a number of reasons such as the creation of alluring costumes.

In this regard, *The Diamond Age* describes how women make use of their cybernetically woven costumes and their capability of mimicry to increase the educational power of their performances. By means of the Primer, an experimental didactic tool derived from ractive methods, women mingle impersonation, heuristics and firsthand experience, and thus, fully exploit their communication skills. This procedure amalgamates computers (a masculine technology) with feminine perception, and suggests an edifying reunion of nature and culture, masculine science with feminine versatility, progress and education. Women, in this sense, become interconnecting multifaceted interfaces of cybernetic societies like the ones described in *The Diamond*; moreover, computers artificially emulate what women do naturally: “computers [...] are the simulators, the screens, the clothing to the matrix, already blatantly linked to the virtual machinery of which nature and culture are subprograms. The computer was always a simulation of weaving [...]. It joins women on and as the interface between man and matter, identity and difference, one and zero, the actual and the virtual” (Plant 1995: 63).

Thus, Stephenson explores the merge of technology and femininity (both of which represent a threat to men due to their capacity for reproduction and allurements)

educational resources that challenge patriarchal schemes. The imitation of beauty and the potential to forge disguises constitute a method to explore women's theatrical skills which, along with the scenic possibilities of computer technology, constitute a technophilic approach to the union of the human and the artificial (as suggested by Dr. X) in order to assemble effective educational procedures (by means of the feminization of cybernetic pedagogies) that critically examine the current status quo. In this regard, Irigaray and Plant have both underlined the contributions of the allegories that match the feminine with computers, signaling the noetic role of mimicry and of simulations as producers of judgmental knowledge derived from virtual environments in which every detail is reproduced and imitated in order to yield faithful scenarios from which empirical erudition can be extracted:

The computer, like woman, is both the appearance and the possibility of simulation. [...] Woman cannot *be* anything, but she can imitate anything valued by man: intelligence, autonomy, beauty. [...] Indeed, if woman is anything, she is the very possibility of mimesis, the one who weaves her own disguises [...]. Woman, like the computer, appears at different times as whatever man requires of her. [...] And, like the computer [...] she [...] can mimic any function. [...] She is – through her inexhaustible aptitude for mimicry – the living foundation for the whole staging of the world (Plant 1995: 59).

The simulations of the Primer, for instance, more than a performance, constitute a constructivist procedure whereby intellectual skills, a blend of rationalization, intuition and assimilation, find a way to decrypt and deconstruct the ultimate meaning of cultural discourses by means of postmodern (and posthuman) techniques. The Primer has its roots in a project named *Dynabook* by Xerox, an educational laptop prototype first intended to use Jean Piaget's 'Theory of Cognitive Development' also known as 'Constructivism', in which knowledge is described as a construction, a sum of conventions, human perception and social experience. This theory claims that education should be dialectic and interactive, always guided (not imposed) by adults.

In Constructivism there are two central processes to ‘construct’ new knowledge from the learner’s experiences: accommodation (reframing one's mental representation of the external world to fit new experiences) and assimilation (incorporation of new experiences into an already existing framework without changing such framework). Instructors assume the role of facilitators rather than teachers, guiding the child through these two processes (See Piaget 1950: 171 and onwards).

The Primer simulacra make use of intertexts, collages, pastiches, mythologies, narratives and quotes that compel the users to re-arrange all of these elements into new personal, meaningful structures. The stories of the Primer, a fractal replica of the user’s circumstances (as, for instance, the parallel stories of Nell and her eponymous avatar) constitute a series of postmodern metatexts that defamiliarize the current environment of a person, blurring the boundaries of the actual and virtual by diverse means. The Primer thus create digital versions of mythological narratives which are later juxtaposed to concrete experiences in order to produce maieutic knowledge. By means of riddles, questions, challenges and unfamiliar situations, the Primer renders a more durable cognition, based on self-teaching methods and the direct contact with a vast erudition that only an immersive simulation can provide:

The Constable eventually pulled up a few flagstones, exposing a small plot [...]. In the plot, Nell planted some carrots [...]. The Primer taught her how to do it and also reminded her to dig up a carrot sprout every few days and examine it so that she could learn how they grew. Nell learned that if she held the Primer above the carrot and stared at a certain page, it would turn into a magic illustration that would grow larger and larger until she could see the tiny little fibers, and the mitochondria inside them. The same trick worked on anything (251).

The Primer, nevertheless, as other issues in *The Diamond Age*, is presented by means of relativistic descriptions, including both its flaws and proposals, by which life is examined from critical perspectives generated by a simulation that emulates physical and social phenomena with every possible detail. The teachings of the Primer

constitute a metalanguage (a discourse that describes itself) that questions and moots its own premises, and thus stand as a postmodern description of modern culture in the sense that no final conclusions are imposed and no indoctrination occurs, turning into a method that questions the infallibility of science. Experience then represents the primary goal of the Primer, but its main objective remains the acquisition of a critical perspective on knowledge itself, an analytical approach to experience. “The gap between her experience and the Primer [or between discursive self and material self] allows her [Nell] to gain *a critical perspective on the Primer’s advice*,” Sherryl Vint writes. “The space for agency and resistance comes from this doubling of perspective” (2007: 164, my emphasis). The Primer is constantly questioned by intellectual authorities (like Nell’s Neo-Victorian tutor, Constable Moore), but, more than anything, it is the critical vision of the Primer itself what prompts for a reconsideration of the cultural elements examined in the simulations. As Moore tells Nell:

In your Primer you have a resource that will make you highly educated, but it will never make you intelligent. That comes from life. Your life up to this point has given you all of the experience you need to be intelligent, but you have to think about those experiences. If you don’t think about them, you will become not merely educated but intelligent (259).

In this regard, the Primer experience, far from becoming an educational panacea, fails to render positive results constantly; its success is related to specific social classes (the Victorians) and, to the optimistic predisposition of individuals like Nell. The Han orphans, for instance, educated en masse by a guideless version of the Primer, succeed in creating a mechanical mass, but fail to acquire individuality and personal aspirations, a process that results in the obliteration of their identities and the formation of a featureless swarm and which stands as a proof of the impossibility to

edify such a vast body of individuals by means of customized methods. On the other hand, the Primer becomes a successful, handy manual that sparks off the long-fancied cultural revolution based on the oriental spirit of martial arts and on the enhancement of the orphans' consciousness by means of simulations that will coach them into opposing patriarchy. In this sense, the Primer becomes an alternative model that replaces classic educational systems, thus turning into "a cheeky reference to Mao's Little Red Book" and to the Chinese Cultural Revolution (McClancy 2006:80).

Stephenson questions the scopes and capacities of the Primer rather than defending his own educational proposal stubbornly. Far from representing a didactic success, the Primer actually fails to provide the necessary elements to stimulate Fiona Hackworth and Elizabeth Finkle-McGraw, even when the device's versatility is designed to adapt to difficult cases and turn people's likings and fantasies into pleasant educational experiences: "To make a long story short, the three girls have turned out differently. Elizabeth is rebellious and high-spirited and lost interest in the primer several years ago. Fiona is bright but depressed, a classic manic-depressive artist. Nell, on the other hand, is a most promising young lady" (337).

Lord Finkle-McGraw's objective by creating the Primer is to introduce an innovative system that prods the student's curiosity: "in order to rise a generation of children who can reach their full potential, we must find a way to make their lives interesting" (21); nevertheless, the focus of the Primer solely on empiricism fails to motivate despondent subjects and to create critical leaders. The fact that Elizabeth relinquishes her position as a potential mass guide in favor of enlisting herself in the ranks of CryptNet allegorizes the novel's endorsement of antihierarchical hive organizations built from conscious individuals (meritocracies) rather than echeloned systems guided by the power of individual leaders.

Paradoxically, the Primer is what allows a cultural revolution not only among the Chinese but amid the female individuals. This machine, created by the Victorians to preserve their hegemony by investing in brain-work and state-of-the-art educational instruments, will in the long run bestow women the power to challenge patriarchal schemes. Whereas cyberpunk's focus was on oppressive, militaristic cyborg technologies as a buttress of patriarchal power, postcyberpunk concentrates on simulations and networks whose role is to magnify, among other things, female perception, experience and consciousness, a posthuman strategy to achieve a more egalitarian, though relativistic relationship between genders. Through these simulations, the intellectual power of women is enriched, leaving behind the historical educational deficit that pigeonholed them into a category they never created by themselves, and, in this way, cultural and gender boundaries are blurred on the one hand, and, on the other, diverse means are created to challenge the masquerades of patriarchy:

SF writers who create feminist metafiction magnify institutionalized –and therefore difficult to view – examples of sexism. [...] Feminist fabulation is feminist fiction that offers us a world clearly and radically discontinuous from the patriarchal one we know, yet returns to confront that known patriarchal world in some feminist cognitive way. It provides “cognitive estrangement” (Darko Suvin's term) from the patriarchal world by depicting feminist visions that confront that patriarchal world (Barr 2005: 145).

The literary power of the Primer yields a hyperbolic image of the brutality, fissures, fiascos and arbitrariness of traditional male behavior, and, in turn, presents a variety of forms that resist indoctrinating powers by creating contexts (aided by sundry cognitive methods) that broaden the critical stance of a subject. The simulations of the Primer foster long-term assimilation by presenting customized scenarios where the subject is pushed into hostile contexts that debunk the fallacies of micropower. In this

sense, Nell partakes in a simulation whose intention is to confute the authority of a tyrannical character, Burt (the eponymous, disparaged version of her step father), by interacting with a jester, a figure anonymously incarnated by Miranda herself who mocks his despotic behavior by means of cognitive processes such as rhyming poems and lampooning tirades. In this regard, poetry, rhyming and satire are regarded as mnemonic methods that encourages mental retention, and which, by means of hyperboles, expose the fallacies of the absolutist postures of oppressors and dictators like Burt:

There was once a Baron named Burt
Who was so tough he couldn't be hurt
And could wrestle a bear; but I think
After two or three drinks
Like a child he'd throw up in his shirt.
"Who dares mock the Baron?" Bellowed Baron Burt (184).

The awareness brought about by the posthuman educational resources of the Primer will propitiate, in the long run, the erasure of gender and of social determinism by means of debunking the despotic ideologies that assemble such labels. The novel thus endorses the creation of a posthuman awareness based on interconnectivity, simulations, performances and impersonation, all of which intends to question deep-rooted doctrines and social patterns anciently accepted as normal. Through the union of posthuman educational resources and nanotechnology, the social atmosphere of *The Diamond* aspires to provide a sense of equity and egalitarianism between genders, social classes and ethnicities, disregarding the nature of the methods proposed for this purpose. Posthuman technologies constitute then the principles of egalitarianism and diversity by stressing the importance of empirical knowledge as the source of identity and personality, of social awareness, and of the exposure of noxious doctrines and ideologies. In this regard, posthuman and cyborg technologies constitute, in

postcyberpunk, a way to defy patriarchal hegemony and obliterate gender determination, in contrast with cyberpunk, in which computer technology are exploited as a means of corporate domination. In cyberpunk, “the cyberbodies are represented in such a highly gendered way to counter the threat that cyborgs indicate the loss of human bodies, where such a loss implies the loss of the gendered distinctions that are essential to maintaining the patriarchal order (which is based on exploiting difference)” (Holland 1995: 159).

Either as patriarchy exposure, or as an entire posthuman social system, the educational model introduced in *The Diamond Age* (based on empirical simulations) seems to aim at the development of what Vernon Vinge calls a ‘singularity’, the existence of a new reality based on the magnification of human and artificial intelligence: “Computer networks and human-computer interfaces seem more mundane than AI [Artificial Intelligence], and yet they could lead to the Singularity. I call this contrasting approach Intelligence Amplification (IA)” (Vinge 1993: web). Yet, from his humanistic perspective, Stephenson remains quite skeptical about the scope and accomplishments of AI as a source of spiritual growth, debunking it as anti-creative and astringent. Instead he endorses the assemblage of a titanic IA, “a kind of super-intelligence [that] might be created by a complete human-computer interface” (Vint 172).

The Turing Test³⁷ that forms part of the Primer’s teachings, i.e. a critical exercise that examines the reaches of AI, makes manifest the limitations of computer intelligence and implies an incredulity toward the full development of artificial

³⁷ The Turing Test’s purpose is to examine a machine’s ability to develop intelligence. “The Turing Test is commonly interpreted as providing a definition of ‘thinking’ or ‘intelligence’. The computer is intelligent *if and only if* the judge cannot tell the difference between the computer and the person” (Epstein 2009: 127).

decision-making. In Stephenson's view, creativeness represents a crucial element of personality, and the simulations of *The Diamond Age* then constitute the ancillary elements that build the identity of a subject since, by means of these heuristic exercises, diverse cultural paradigms are proposed. The novel is pessimistic about the development of artificial intelligence, describing it as devoid of creativity and imagination, as shown by a simulation in which Nell applies the Turing Test to an unidentified character whose envy for human spontaneity and inventiveness uncovers him as a rudimentary machine:

She sent him another poem. [...] The answer came back much too quickly, and it was the same answer as always: 'I do so envy your skill with words [...].' She had made it obvious as she dared, and the Duke still hadn't gotten the message. He must be a machine. Why the deception? [...] Once Nell had figured these things out, the rest of the Castle Turing story resolved itself quickly and neatly (323).

By solving diverse conundrums in the Primer, Nell learns to read (to decode) the underlying essence of cultural messages that take the form of either enlightening discourses or indoctrinating ideologies. In this manner, *decryption* (the decodification of a discourse) is elevated to the rank of the most significant agent of social equity and egalitarianism, and constitutes an indispensable element to counter cultural phallogocentrism³⁸ by means active education and the deconstruction of manifold oppressive doctrines. Education takes the form of deconstruction which allows for the toppling of propagandizing schemes; yet deconstruction itself depends on

³⁸ A blend of phallogocentrism and logocentrism, phallogocentrism uncovers the noxious importance given to one of the elements of a binary opposition (e.g. speech over writing, the masculine over the feminine). Traditional structuralism is based on binary oppositions; poststructuralism, on the other hand, identifies the preponderance of one element for over another, a cultural vice broken only with the aid of deconstructive strategies: "I speak mostly, and have for a long time, about sexual differences, rather than about one difference only - twofold and oppositional - which is indeed, with phallogocentrism, with what I also nickname '*phallogocentrism*,' a structural feature of philosophical discourse that will have prevailed in the tradition. Before any feminist politicalization [...], it is important to recognize this strong phallogocentric underpinning that conditions just about all of our cultural heritage" (Derrida in Dely 2007: web).

reconstruction, a critical re-writing of the experience that will garner a new meaning once the fallacies of the Establishment are debunked, what Sherryl Vint envisions as the struggle between the passiveness of the discourse and the activeness of a reader's agency, since "writing self is also writing world, in the sense that by writing the story of how one came to be this particular self, one writes one's understanding of the social rules that structure the world in which one circulates" (2007: 165).

By understanding the social rules, Nell cross-examines the source and validity of diverse ideologies and, furthermore, she discovers the full power of her critical views when she is compelled to make decisions in order to confront tyrannical or influential ideologies. Hence, as Nell breaks free from Burt's clutch (her stepfather), the Fists army or the Victorians with the aid of the expertise acquired in the Primer, she has completed a cycle that includes a phenomenological firsthand experience, the deconstruction of its social meaning and the rewriting of those experiences within a fresh framework. Such a process employs posthuman procedures as the basis of a critical stance against oppressive doctrines, of the liberation from impositions and of the construction of a gigantic social IA (intelligence amplification) as the source of collective evolution and as the beginning of a more concerned society, where identity will commune with interconnection and globalization in a positive manner.

As a conclusion for the present chapter we have examined the evolution of the dystopian atmospheres of cyberpunk into more complex settings that involve a more conscious scrutiny of the influence of computer technology in composite societies such as the one Stephenson describes in *The Diamond Age*. Education is regarded as a type of wealth and the struggle for information and knowledge is the main concern for ambitious governments like the Victorian and the Confucian ones. Also, the oppressive networks of cyberpunk have been transformed into socialized apparatuses

that work for a communal benefit rather than as financial corporate havens. Educational paradigms and cognitive simulations form part of the new applications of the immersive virtual settings described by Stephenson. Finally, the female characters extrapolate their skills and talents onto male technologies in order to create more powerful cybernetic models, turning them into more holistic and efficient machines that help create a better environment for the complex communities depicted in the novel.

Chapter II. Immersive virtual atmospheres and digital cosmologies: in silico philosophy, mythology and science in Greg Egan's *Permutation City* and other sources

Plot summary of *Permutation City*

Greg Egan was born in Perth, Australia in 1961. His science fiction examines modern trends in science and contemporary social issues; his main concerns are all associated with quantum mechanics, genetic engineering, posthumanism, parallel universes, digital environments and sexuality. His most emblematic works deal with a multiplicity of hard science avenues and philosophies such as *Diaspora* (1997) and *Schild's Ladder* (2002), both of which focus on parallel universes (paraverses), quantum physics, virtual personalities, digital capital, solipsism and computer-generated settings.

Permutation City (1994), a novel about immersive virtual realities and paraspaces, is structurally divided in two large sections, the first one spanning two thirds of the body of the novel. The action in each part are separated is 7000 subjective years. The first section jumps alternatively between the years 2045 and 2050 in a postindustrial setting in which climate change has altered and affected the domestic production of several countries. While nanotechnology and ubiquitous computer networks compose a poscapitalistic financial backdrop, computers are also employed as medical support in the sense that a person's digital scan can be used as an experimental scale-model, keeping the patient safe and fostering his longevity. Furthermore, wealthy tycoons use mind-scans (Copies) as digital backups of their selves in case of facing a physical impairment or even death.

In Sidney, Paul Durham, a cured psychotic, devises an ambitious stratagem that will create an indestructible computer haven as a dwelling for the Copies of well-off seniors. At the same time, this retreat will give them the opportunity to explore infinite cosmic and biological phenomena in a cognitive manner, since this the self-replicating capabilities of this cyber-universe will create a rich diversity liable to be studied scientifically. Moreover, with the creation of this domain, Durham plans to prove the so-called 'Dust Theory' which examines basically two ideas: first, that every mathematical structure also exists in a physical plane, and second, that everything in the universe is a product of chance, a cosmic rearrangement of matter (or dust) which can render a multiplicity of life forms.

As Durham pays a visit to different thanatophobic millionaires to offer them a place in his brand new haven, he hires digital architect Malcolm Carter to design a virtual metropolis, Permutation City, within the new universe known as the 'TVC universe' after Turing, Von Neumann and Chang. He also approaches Maria Deluca, a cyber-enthusiast and devotee of a virtual simulation known as the 'Autoverse' in which CGI chemistry models and artificial life forms can be manipulated as a learning experience. Maria then becomes the first person to achieve mutation and turn the simulated organism into more complex entities within this biochemical simulation, an accomplishment that prompts Durham to hire her as the possible creator of a biological 'planet' within the TVC universe. This new virtual environment will allow Copies to study the evolution of life by accelerating the processes of 'nature', and by creating mutations and new 'biological' species, a simulation-within-a-simulation called 'Planet Lambert', after the first mutated bacterium, *A. lamberti*.

Meanwhile, the fraud committee of the highly technologized and meticulous Australian government investigates Durham since he is believed to be a con artist

with no concrete offers. Durham then visits Thomas Riemann, a German repentant murderer who lives currently as a Copy in diverse VRs, and introduces him to the TCV's project. Meanwhile, architect Carter helps two of his thanatophobic acquaintances (Peer and his wife Kate) to stow away themselves into Permutation City. Durham's self experimentation as a Copy makes him realize the fact that his awareness would not conclude once the Copy is terminated, since Copies have no precedent to compute themselves as finite consciousness. Instead, when deleted, Durham's Copy will wake up in the real world in his material body, an experience that leads him to surmise that the configuration and self-replication of the Copies will allow them to persist perennially in the TVC universe, a realm that per se replicates itself *ad infinitum*. Durham also believes that the entire world's computer power will be used to control the erratic weather. Because of this, the few Copies existing are threatened and might lose their cybernetic niche if a revolt against them starts. Here lies the importance of TVC universe for those wealthy Copies.

Durham and Maria manage to create Planet Lambert, a biochemical simulation attached to the TVC universe. This discrete universe resembles a real planet in which artificial life is used for experimentation purposes. After that, Maria agrees to have her mind scanned in order to serve as an eventual fail-safe expert within the project. She would be deleted right after the launch of the TVC universe. Durham remunerates her with a large amount of money that she intends to use to save her dying mother. By the end of part one Maria and Durham celebrate their achievements by making love, after which he disembowels himself with a knife since he is convinced that the Dust Theory has been proven right and hence prefers to live only as a Copy. The TCV now functions on its own laws and has succeeded in replicating itself unaided. Durham's Copy is then given the task to discover his own identity once in the TVC universe.

The second part takes place entirely in the virtual domains of Elysium (the TVC's new name) in which bodily and monetary needs are dispensed with since money is of no use within the simulation. Maria then awakens after seven thousand subjective years (all the simulations run at different speeds), to find herself as part of the TVC universe and, infuriated, reproaches Durham for her undesired awakening to which he responds by updating her with the current precarious situation: Planet Lambert is running out of control after billions of subjective years of functioning, and the Lambertians (mainly insect-like conscious forms) are expanding and threatening to take over Permutation City's processing power. The Elysians then decide to make an incursion into Planet Lambert and reveal themselves as their creators of this world in response to the Lambertians' cosmogonical theories that exclude creationism, which is regarded as ludicrous and unfeasible. The most widespread theory among Lambertians refers to the spontaneous generation of matter and life at extreme high temperatures.

It is disclosed that Maria's awakening constitutes a last opportunity for Durham to sneak into Planet Lambert and attempt to interrupt its functions until Elysium catches up with the loss of computing power without becoming publicly accountable for this action. Since Maria's assigned territory adjoins Lambertian terrain she becomes the perfect candidate to aid Durham's stratagem. Elysium's political assembly, in turn, decides to dispatch a flying saucer expedition into Planet Lambert in order to disseminate the creationist theory, which will actually confuse Lambertians in a larger degree since Elysians would not proceed from another planet but from another discrete universe, thus divulging not only a creationist theory, but actually an alien-based cosmology. To their surprise, the Labertians discredit such theories, and rather stick to their scientific conjectures. This will provoke a massive

system collapse of the TVC universe. To this, the Elysians respond by launching a Garden-of-Eden configuration (a start from scratch, similar to the what Maria produces when she created Planet Lambert) and thus reboot the TVC universe. Durham, tired of his multiple awakenings in virtual environments, decides not to be part of this new beginning and delete his Copy. Yet, persuaded by Maria he acquiesces to remain alive and explore the new multiple possibilities of the self-perpetuating TVC universe.

The plot of *Permutation City*, although concise, is extremely complex and focuses on a great variety of issues and avenues. In this regard, Stephenson's *The Diamond Age*, in some ways a less complicated novel, serves as a better starting point and as a clear model to describe postcyberpunk as a genre, which also provides the ground for an easier access to the composite scenarios described by Egan.

II.1 Late capitalism and thanatophobia: the influence of cyberpunk in the early stages of *Permutation City*

II.1.1 The hegemony of corporate capital: computer hardware and the body as allegories of monetary power

Greg Egan's *Permutation City* follows the patterns of postcyberpunk and, like Stephenson's novel, introduces an initial dystopian setting which eventually evolves into a complex and kaleidoscopic backdrop. The socio-cybernetic issues regarded as noxious by cyberpunk are here reevaluated and new questions are posed in regard to the purviews of technology. Social malaise and inequality, although not as widespread as in cyberpunk, also form part of this mid 21st century backdrop, especially those issues related to digital capital, corporate power, surveillance, resource shortage, pervasive computer technology, ecological damage and overpopulation, all of which contrast with the opulent life of the wealthy, as Maria tells Durham: "Three hundred million people are living in refugee camps, and you're offering *sanctuary* to sixteen billionaires!" (Egan 1994: 158).

The real hazards of our near-future represent for the characters of *Permutation City* a source of anxiety and apprehension, a set of sensitive circumstances that compels them into developing Gilgameshian³⁹ desires for immortality and to the dissolution of mundane anxieties. "At the beginning of *Permutation City*," Brian

³⁹ "The popularity of Gilgamesh stems, no doubt, from the fact that its primary theme resonates with all of us: the search for immortality. Readers familiar with Gilgamesh will know that Gilgamesh first pursued immortality through fame as a great warrior and king, but the death of his close friend, Enkidu, reminded him that mortal fame was not enough" (Sparks 2008: 55).

Attebery writes, “Egan’s characters worry, in a more or less conventional way, about jobs and relationships, but as the novel progresses they become more deeply concerned with creating artificial life” (2004: 163). The synthetic life that these characters create serves several purposes such as physiological and philosophical experimentation, the generation of knowledge about themselves and the universe, and obviously struggle against their fear of decay and oblivion.

On the other hand, money plays an indispensable function in the first part of the novel, and is entirely absent in the second. The opening scenes of *Permutation City* are associated with bodily needs and pecuniary issue, while the last sections are entirely devoted to postcapitalism and disembodiment. The prevalent concern of the first section relates as much to Gibsonian body anxieties as to the scarcity of resources, the money needed to achieve disembodiment and the need for enduring computer hardware. In *Permutation City*, longevity can be attained, on the one hand, by means of nanobiology and genetic engineering and, on the other, by means of cybernetic disembodiment, a fact that makes potent hardware a necessary element to host bodiless minds and which sparks a scuffle among the rich to attain as much computer power as possible. In this regard, middle class individuals are left without the possibility of acquiring cybernetic power in order to aspire to immortality, and thus they submit to a social handicap in regard to the power of corporation and the wealthy. This constitutes a classic cyberpunk polarity which Egan underline but refuses to acknowledge it as his focal point: “Tens of thousands of academic and industrial researches relied on the Exchange [the computer power marketplace] every day for tasks it wasn’t worth owning the power to perform in-house. [...] Who needed that much computing power? Big business, big science, the military? All had their

own private hardware – usually in excess of their requirements. If they traded at all, it was to sell their surplus capacity” (24).

In *Permutation City* hardware constantly appears associated with the physical body and with a large-scale representation of the physical facets of postindustrialism. The economic implications of hardware are then related to an enslaving materiality which overtaxes individuals and raises capitalistic anxieties, monopoly-phobias and scarcity apprehension. The main indicator of the evolution of the novel from its initial cyberpunk stages into a postcyberpunk setting lies on the fact that this unfavorable environment for the individual, reflected by an anxious need for resources such as hardware, eventually dispenses with the need for material implements. In this regard, in the second part of the novel, the TVC universe, for instance, perpetuates itself without the need for hardware, since, as proved by the Dust Theory, once a certain cyber-consciousness is executed it will run on its own ethereal foundations eternally. This is exemplified by Durham’s epiphany as a result of his experience as a Copy, by which he concludes that simulations and real-life objects are self-perpetuating since they are both a product of cosmic ‘dust’:

Further, he [Paul] proceeds to theorize and then to invent a computational device that requires no hardware at all. Simply by running the first few seconds of a massive simulation on linked computers around the world and then suddenly cutting off the program, Paul proposes that he can generate a self-sustaining order as the conscious minds within the simulation continue to create order out of the random movements of the universe (Attebery 2004: 161).

Thus, disembodiment is seen as the ultimate solution to a typical cyberpunk predicament which, on the one hand, relates to the need for a bulky set of hardware in order to launch a virtual environment, and, on the other, the need of money to sustain this artificial world. Hardware is consequently regarded as the obsolete carcass of computers, the mundane anchor that keeps the virtual from deploying its full potential

or, translated into anthropomorphic metaphors, the flesh that kills the mind once dead. This body anxiety is palliated by means of quantum mechanics theories, since self-replicating software, regarded as pure ‘mental’ structures, is considered as likely to perpetuate itself without the need of physical devices.

These *sui generis* virtual settings turn money into an obsolete mechanism, as we will see in the following section; nevertheless, postcyberpunk paradigms dictate the need to illustrate the contrast between those classic cyberpunk apprehensions and the new views on computer technology. This contrast is accentuated in *Permutation City* also at a narratological level, since the two large sections that constitute the work appear in opposition with one another, the first one centered on the relationship between money and longevity (a typical bourgeois tenet), while the second one succeeds in building a world that dispenses with an economic infrastructure.

On that account, while Stephenson’s proposes a poscapitalistic arrangement *alla* Toffler in which money becomes widely available for diverse social causes, in Egan’s narrative, money represents a burdensome weight that hinders cybernetic disembodiment and the evolution of the social ‘mind’, and therefore it is necessary to dispense with it. Cyberpunk’s view on money is associated with the digital means of control and social inequality, but in Stephenson and Egan’s postcyberpunk, currency becomes either a liberating force or an unnecessary element that hampers the evolution of cyberculture. In this regard, Arturo Escobar states that “for some (Haraway, Rabinow), while cyberculture can be seen as the imposition of a new grid of control on the planet, it also represents new possibilities for potent articulations between humans, nature and machines” (1994: 217).

In this sense, Egan still regards the interdependence of humans and hardware (a representation of money) as obsolete, and, for him, primitive computer technology constitutes the substitute of one fleshy body by a machinic one, but it is still a *body*, a replacement of one means of control for another, of one encumbrance with a similar one; this represents the reason why hardware cyborgs are absent from his transhumanism, since computer networks and money represent, more than a method of social oppression, a limited and limiting infrastructure for knowledge and disembodied immortality.

In *Permutation City*, the characters harbor the fantasy that money equals longevity, and, for this, biogenetics, nanotechnology and cybernetic disembodiment become their primary object of their investments. Nevertheless, their real monetary target is on the perpetuity of funds, the self-sustainability of capital and the total independence from material resources. All of these long-term schemes, although individualistic at first, will allow humans to leave behind social malaise to concentrate on more transcendental themes rather than individualistic struggles. In this regard, the first stages of the book, individual wealth is associated with a person's lifespan, while longevity is aided by affordable technologies such as nanotech and biotech. In the second part, in contrast, life is independent from money or materiality and becomes self-perpetuating and autopoietic.

Egan's materiality anxiety also prompts for the total independence from natural resources or even from the Earth as a shelter of physical forms. He seems totally aware of the interdependence of concepts (software) and materiality (hardware), and thus depicts an inceptive cyberspace (like our internet) that exemplifies this symbiosis, an initial setting in which computer networks appear totally dependant on physical resources; nevertheless, this computer ground will

eventually develop the need for independence from physical domains. For Brian Attebery a similar correlation exists between theme parks (potential chimerical utopias) and nature, defined as the necessary infrastructure required for their functioning but which represents a limitation for their delusive paradisiacal purposes:

Neither the Theme Park nor the Urban Growth is utopia, and neither is exactly reality, either. Both are embodiments of human ideas and desires. Both are dependent on the very natural world that they wall out, substituting for the real currency of food, water, and energy some imaginary substitute like dollars or ticket books. Just as each needs the other to critique it, lest it turn into dystopia, both need further criticism from outside the city altogether (Attebery 1996: 9).

Likewise, Egan's earliest computer networks intend to foster utopian fantasies about immortality and unlimited knowledge within a space that initially depends on material grounds. From these physical limitations certain characters like Durham will attempt to obtain independence. In addition, *Permutation City's* weather-angst has little to do with ecology or with environmental depletion anxieties, but with the fear of social revolt derived from ecological deterioration, a possible threat to the stability cherished by the wealthy. A very cyberpunkish trait in the novel, the struggle between the basic needs of people and the desires to achieve everlasting life and consciousness is constantly addressed as a confrontation neither understood nor accepted popularly. The strain between bodily needs and the perpetuation of the disembodied mind forms part of a debate associated with the leisure and posh culture of the wealthy, as exemplified by a conversation between body-anxious tycoon Thomas Riemann and working-class Durham:

[Durham:] "A small enough elite of giga-rich Copies is accepted as a freak show; tycoons can get away with anything, they're not expected to act like ordinary people. But just wait until the numbers go up by a factor of ten."
[Riemann: "...] even now we're vilified far less than people who strive for *organic* hyper-longevity – transplants, cellular rejuvenation, whatever – because at least *we're* no longer pushing up the cost of health care, competing for the use of overburdened medical facilities. Nor are we consuming natural resources at anything like the rate we did when we were alive. If the technology improves

sufficiently, the environmental impact of the wealthiest Copy could end up being less than that of the most ascetic living human.”

[Durham: “...] the same computing power could be used to save tens of thousands of lives through weather control” (28-29, emphasis original).

This Cartesian clash between corporeality and the mind represents a trace from classic cyberpunk in which a series of oxymorons and contradictions –mind vs. body, high-tech vs. low-life– expose the precarious plight of humans before a series of natural adverse occurrences (death, disease). In this regard, the debates around the use of computer technology reveal the conflict between popular masses and ruthless dominating powers such as that of corporations or industrialists. Thus, ordinary individuals are described in a constant struggle against nature herself (the weather) and their social ‘enemies’ (the wealthy, exclusive thanatophobes), a sensitive situation whose momentum increases with time and whose only possible solution, according to Egan, is the relinquishment of physical resources such as hardware or raw materials. Thus, disembodied minds, totally dependable on hardware, are at risk of losing not only their cyber-retreats but also their self-sustainable trust funds, in the case that either the world’s computer power or the climate fails to supply an infrastructure to these frail entities, a situation that sparks a debate between the realists and the wealthy idealists:

[... Durham:] “And even if weather control turns out to be viable, more supercomputers can always be built. It doesn't have to be a matter of Copies versus flood victims.”

[... Riemann:] “There's a limited supply of computing power right now, isn't there? Of course it will grow – but the demand, from Copies, and for weather control, is almost certain to grow faster. Long before we get to your deathless Utopia, we'll hit a bottle-neck – and I believe that will bring on a time when Copies are declared *illegal*. [...] Trusts and foundations will have their assets confiscated. Supercomputers will be heavily policed. Scanners – and scan files – will be destroyed. It may be forty years before any of this happens – or it may be sooner. Either way, you need to be prepared” (28-29, emphasis original).

In *Permutation City*, the correlation between digital money (or computer power), and human lifespan in virtual environments allegorizes a socioeconomic hierarchy in which certain entities are assigned better dwellings (here translated into faster processors), whereas pauperized individuals are relegated to lesser districts (associated with minor processors or with denied access). In this regard, Peer and Kate, the two cyber-stowaways whose digital life depends totally on concealment, represent a cyberpunk vestige, as these beings move in between persecution and marginalization, and in a situation that constantly compels them to rethink their stratagems to remain alive whose solutions are either the acquisition of a cheap prospect of existence or a life as fugitives who flee the expensive computer-power fees. In this regard, Peer incarnates a cyberpunk outcast whose philosophy is that of underground survival: “The cheaper we are, the less vulnerable we are” (51). Kate’s stance, on the other hand, represents a postcyberpunk objective debate on marginalization: “That’s only half the truth. The more we’re marginalized, the more we’re at risk” (51).

Thus, for Peer and Kate digital life as stowaways allegorizes slum-dwelling, a critical situation threatened at a greater extent by external factors such as weather conditions, the struggle for computer power or an eventual anti-copy revolt. At this incipient level, the narration then stresses the use of words like “heavily policed”, “bottle-neck”, “illegal”, associated with classic cyberpunk’s paranoia and which will induce Egan to construct a second version of the city, a utopian space that finds itself able to recede from old cyberpunk formulas and move into the realms of postcyberpunk: “On the one hand there is the sprawling, brawling, economically driven city; on the other the integrated, enclosed, idealized city. The two types show up in Greg Egan’s *Permutation City*” (Attebery 1996: 7).

Yet, the ‘economically driven city’ persists in assembling a rough atmosphere where money dictates the course of actions and thinking, and influences political views and ideologies, a portrait of the American model of indoctrination that since the 1960’s has been mastering the use of computer technology and mass media to spread its rigid schemes and draconian enforcements, as attested by Docter and Dutton: “Since the 1960s, scholars, politicians and journalists have championed the use of electronic communications systems, like interactive cable television, to improve the responsiveness of political institutions and allow for more direct citizen participation in public affairs” (1998: 125). This cybernetic propaganda represents a step forward to what Orwell criticized so intently about ironclad totalitarian persuasion by means of indoctrinating the masses and turning dissidents into a minority. As shown in the pre-cyberpunk novel *1984*, the manipulation of data as a means of control originates a painstaking struggle against institutional discourses that fluctuate between doctrines such as “sanity was statistical” (Orwell 1950: 277) and “sanity is not statistical” (217), both of which derive in an official Party propaganda fashioned on “controlled insanity” (216). While Orwell lambastes totalitarianism by means of unsettling oxymorons, Egan disparages capitalism and materialism by means of estranged cybernetic occurrences such as Peer and Kate’s paranoid seclusion or computer power monopolies. This represents an inescapable economic setting that generates social inequality and fierce corporate indoctrination, as well as the construction of a *sense of reality* dependent on the purchase power of money. Egan’s descriptions of how money affects flesh-and-blood individuals and disembodied consciousnesses allow him to prove how deep our financial anxieties can be ingrained, as exemplified by Peer’s new disembodied experiences and meditations within the VR simulation:

What was the point of being scanned, only to remain enslaved by an obsolete respect for the body's fragility? [...] Any number of expensive, disabling diseases

might have dragged him from upper-middle-class comfort into comparative poverty and isolation – but dying "poor" had an extra sting. In corporeal life, he'd happily gone along with the consensus: *money as the deepest level of reality*, ownership records as the definition of truth [...] It wasn't physically impossible, it wasn't biologically absurd, to imagine *life without money*. [...] Watching the screens of his Bunker, he'd looked back on that trite but comforting understanding with a dizzying sense of loss – because it was no longer in his power to distance himself, however briefly, from the mass hallucination of commerce-as-reality, no longer possible to wrench some half-self-mocking sense of dignity and independence out of his hypothetical ability to live naked in the woods (94-96, first emphasis mine, second original).

The 'end-of-resources phobia' portrayed in *Permutation City* constitutes a lesser relative of other money-related anxieties such as monopoly-phobia or cybernetic monetary control; the counterpart of these syndromes relates to biblical fantasies such as the Garden of Eden, associated with a life without scarcity fears exemplified by the pipe dream about "living naked in the woods". In addition to this precarious setting, such popular dreads are utilized as a means of institutional control; the fear of scarcity and impoverishment allows statesmen to dominate the masses through indoctrination and through Big Lies like those of Hitler. Vast masses are then entrapped by consumeristic doctrines fed by monetary fears. "In the present discursive constructions of consumer capitalism," Eve Kosofsky Sedgwick states, "the powers of our 'free will' are always already vitiated by the 'truth' of compulsion" (1992: 592). In this regard, according to the cyber-economic narratives of *Permutation City*, humanity is captive by the ironies of wealth: money gives us freedom but enslaves us at the same time.

In the same manner, in the early stages of the novel, identity seems to be constructed after an economic framework that involves the capacity to purchase computer power, which also represents the capability to extend life; self-perpetuating funds, an allegory of retirement plans, are fully associated not only with long-lasting life, but with self-awareness and identity, as if computer power were linked to a

peculiar way to view the world and shape the perception of the self, as illustrated by the mechanisms of money that influence Peer's worldview: "Money had ceased to be a convenient fiction to be viewed with appropriate irony – because the computerized *financial transactions* which flowed from his investments to the network's [computer power] providers now underpinned *everything he thought, everything he perceived, everything he was*" (96, my italics). Thus, reality and identity, in this incipient part of the novel, are related to the power of money and computers, a combination that dictates the consolidation of personality and popular beliefs in current times. The relationship of materiality and identity provokes a rupture in the collective construction of the self, as consumerism and the dependence on natural resources both shape the people's identity, once unified by Cartesian views, now broken by the postmodern uses of wealth and the fears this system entails. In this manner, these cyber-narratives illustrate how the virtual (associated with the mind and with intellectuality) has been contaminated by physical anxieties. Such discourses reveal the real mechanisms that assemble the current senses of identity and provide a series of hyperbolic instances that expose the unscrupulous methods of corporate indoctrination such as the phenomenon described by Jeffrey Schulz by which the costumers' profiles are modeled by financial trends and digital capital, and not vice-versa:

However, cyberspace is not the only site where identity currently is constituted. There still must be a physical body that shapes itself in real space before there can be a virtual body. As such, identity remains, to a certain extent, grounded in physicality. But it is the way in which the physical body invents itself in real space that allows it to be virtually constructed. The use of a credit card provides an example. Each use of a card is first an inward construction of identity through a purchase -to paraphrase Barbara Kruger, "I purchase, therefore I am". *But the use of a credit card also enables virtual space outwardly to constitute the consumer's identity in terms of demographic information.* One result of this situation is that individuals now exist as multiple entities. The concept of a stable, Cartesian identity has been replaced by a highly unstable, dispersed identity (Schulz 1993: 438, my italics).

Finally, identity, as a product of a financial consensus, represents the ultimate ground on which the corporate dominion inherently deploys its massive hegemony which arouses seditious counterattack by subversive hackers in traditional cyberpunk narratives. Nevertheless, in Egan's discourse, this corporate domination is magnified by indoctrination and ideologies associated with scarcity-phobias, all of which compels the author to root for an alternative world that refuses to depend on material supplies and which utterly rejects the influence of corporate capital in the formation of identity.

II.1.2 The instruments of corporate domination: militarism, financial legislations and cybernetic surveillance in *Permutation City*

Recent analyses of cyberpunk texts like *The Matrix*, for instance, tend to dig into their philosophical or religious allegories, and sometimes overlook the fact that, prior to those philosophical undertones, cyberpunk, in the very first place, allegorizes corporate domination. Through diverse cyberpunk narratives we can already identify the analogy of a killing or invasive machine as a classic metonymy of corporate pervasion. Yet, in this regard, the critics of *The Matrix* often disregard this comparison as the core of the films; it is barely mentioned in scholarly criticism that machines stand as the ultimate portrayal of automatized industrialist ideologies. In *The Terminator*, for example, an android from the future attempts to kill the mother of the leader of a rebellion against the machines, a narrative that embodies the typical threat of corporate power against femininity and reproduction associated with masculine fear and with the proclivity to deprive women from their reproductiveness. These machines, then, represent the mechanized and insensitive world of power that contrasts with the vulnerability of ordinary people:

The Terminator is, of course, an extreme example of the power of those who control society (and the various Terminators at their command) but the ambience of the film, the gritty quality of the parking garages and police stations, is the world of the powerless and fatalistic. [...] The Terminator, as its name implies, represents death and is asexual, while Sarah represents life and fertility. Schwarzenegger does a superb job of capturing this... he is very cold, matter of fact and businesslike (Berger 1998: 160-163).

Thus, machines, especially the murderous ones, appear inextricably associated with the blatant behavior of corporate hegemony, a technology-based power that aspires to supreme control and the automatization of the human psyche through its debasing

mechanizing impositions as shown in dystopian films such as *M.A.R.K. 13*, *Robocop*, *The Terminator* and *The Matrix* Trilogy.

Yet, machines do not constitute the only facet of corporate control in cyberpunk. Fraudulent cyberspaces, induced consumerism, brainwashing and militarism all stand as the utmost representation of mass control. Cybernetic inventions have highly interested military research programs such as the MK-Ultra in the 50's and 60's, as exemplified in the proto-cyberpunk film *Brainstorm* (1983) in which SQUID recordings⁴⁰ replicate human experiences for a later use in espionage and control.

Corporate fraud and intellectual theft, in turn, constitute the main premise in *Tron* (1982), a cybernetic film that enhances the struggle between individuals and ruthless transnationals. *Blade Runner* (1982), in turn, describes how a cyborg manufacturing corporation (Tyrell) designs manipulatable cannon fodder (replicants, androids) for undesirable missions such as military jobs, industrial tasks and prostitution in off-world colonies, thus dictating the existence/non-existence of mechanized individuals as well the range of their emotions.

Corporations are also designers of a Disneyland-like gaudy utopia in the film *Robocop* (1987), in which police corps are taken over by corporate firms in order to expunge slummy territories in favor of their commercial projects, a militarized setting that resembles the 1980s Reaganomics and Thatcher's ultra-liberalism. A classic cyberpunk narrative, business conglomerates create their own judicial systems

⁴⁰ SQUIDS are magnetometers capable of measuring weak magnetic fields even when separated by insulating barriers: "We have developed a novel family of low-noise superconducting quantum interference devices (SQUIDS) to cover a wide range of applications. [...] In many applications the SQUID is used as a low noise current amplifier rather than a magnetic field sensor, e.g., to sense the current in a superconducting pickup coil or to read out cryogenic detectors." (Drung 2007: web) Typical devices of the film *Strange Days* (1995), SQUIDS can record human experiences and reproduce them in full detail.

according to their own interests, producing an oppressed mechanical society whose uncontrollable, imposed consumerism is associated with the loss of values, the lack of free will and the obliteration of a genuine individuality:

Cyberpunk societies are basically capitalist dystopias. The mega-corporation becomes the very symbol of the uninhibited greed, power hunger and merciless exploitation in the unrestrained, capitalistic society. The corporation has ceased to be exclusively an economical entity: it has transformed into a miniature state with own government, constitution, code of laws, police, army etc. The power of the national governments has been fatally weakened; perhaps by themselves even. The only governmental authority which has managed to preserve its power is the military; possibly also the police (Hermansson 2003: web).

Yet, perhaps the best example of corporate control in proto-cyberpunk is provided by Daniel Galouye's masterpiece *Simulacron 3* (1964), a novel that, even in a very atypical period of the history of science fiction, employs the quintessential topoi of cybernetic narratives. In Galouye's narrative, an immersive virtual reality stands as the environment where computer-generated people are used to obtain marketing polls in order to reduce the prices of real surveys. Yet the inhabitants of this simulation appear entirely oblivious of the artificiality of their environment and of the control exerted by the corporations that created such a world.

A Baudrillardian backdrop in which the illusory comfort of life substitutes a harsh reality, these people are actually used and controlled by corporations, all of which stands as an allegory of the establishment of an entire corporate code of laws whose origin and ratification is totally unknown to common people. Baudrillard, as opposed to Plato, suggests that modern societies believe to live in a utopian fantasy (in the guise of Disneyland, Hollywood films or religious iconography), whereas reality consists of a hideous state of affairs which has been substituted by the illusion of comfort provided by capitalist fantasies. While for Plato we are hindered to perceive the ideal perfect world, for Baudrillard such faux-ideal environments blind us from the truth about the grotesqueness of the world around us (see Baudrillard

1994). In this sense, the city in *Simulacron 3* is ruled by arcane powers and the destinies of its inhabitants manipulated, and their lives are terminated whenever they dare to uncover or divulge the truth about the genesis of this manipulative sphere. The corporation becomes tantamount to the city, its inhabitants turned into captive, unaware laborers of a system they cannot control or even disclose, and which manipulates the lower strata of society capriciously in order to obtain the greatest profits at the expense of these unaware pawns. As a corporate CEO claims “‘It’s not our intention to put anybody out of work,’ [says a corporate CEO]. ‘But when automation fully takes over in opinion sampling, some adjustments will have to be made in employment practices’” (Galouye 2001: 3).

No wonder that the immersive simulation of the novel is also intended to serve as a “social environment simulator for political probability forecasts” (Galouye 2001: 2). Statistics are a scientific procedure that allows to make accurate predictions, a method also used by the Oracle in *The Matrix* franchise; she, by means of her lifelong experience, has garnered sufficient information so as to predict human behavior with astounding precision. A similar premise also forms part of the cult film *Groundhog Day* (1993), in which, after the tedious repetition of the same actions time and again, the protagonist comes to the conclusion that God might not be almighty, but actually cunning, since “‘maybe the real God uses tricks, you know, maybe he’s not omnipotent, he’s just been around so long he knows everything’” (Ramis 1993: film). The film revolves around the idea of achieving perfection heuristically, a computer-like use of trial-and-error techniques that render impeccable results through mechanical repetition. In the same manner, in *The Matrix*, the Oracle’s assignment is to figure universal patterns of the human psyche by means of a constant repetition and scrutiny of its mannerisms and idiosyncrasies.

In a similar way, the Platonic-like corporate simulator of *Simulacron 3* provides CEOs and scientists with god-like powers derived from heuristics like those of *Groundhog* or *The Matrix*. Through the use of cybernetic procedures and infinite trial-and-error tests these characters develop a mighty ability for political prediction and economic expertise; combined with the invisibility and impenetrability of corporate power, this ability for foretelling identifies corporations with mythological deities. Corporate conglomerates possess the power to shape their own private realms with their particular laws and authorities, and thus affect virtual environments like those of *Simulacron 3* with the capriciousness and the autocracy of immune, untouchable divinities. Like in *Snow Crash* and *The Diamond Age*, in Galouye's novel, corporations turn nations into geo-political states scattered around the globe whose cohesive force are communal interests and wealth, a recurrent figure of cyberpunk narratives:

The most common prediction [in cyberpunk] is the rise of the corporate state. The Corporation can harness the forces of the market, serving its employees/citizens in a way that the castrated nations of the cyberpunk world cannot. Similarly, in a world devoid of national protections, the Corporation can both serve as an enforcer of laws (as in the burblaves of *Snow Crash*) and an exploiter of the power vacuum (Conterio 2002: web).

Another way to regard corporate power is through the military. In Sterling's 1988 novel *Islands in the Net*, for instance, the military stands on a par with globalized corporate power, all the more since armies constitute one of the two strategies that keep corporations steady, the other one being marketing psychology. Armies are presented in this text as mercenary forces that safeguard the elites' wealth and not national sovereignty, a fact that triggers the transfer of self-determination from nations into corporate states which disables ethnicities and democracies from building cultural commonwealths, thus emphasizing the differences between the extremely well-off and the working classes. Yet, the most sensitive issue in this novel remains

the inexorable hunger of corporations for dominion and selfish law enacting, which turns globalization into a detrimental process rather than a ground for the propagation of general welfare. This is depicted by the disputes between corporate chairmen and bureaucrats when, for instance, they plan military invasions like that against Grenada:

Yoshio laughed at them [the chairmen]. “[...] You were acting as Rizome [corporation] diplomats already—subverting Grenada for your corporate politics. [...] We could hire many mercenaries and put them under Vienna’s command.” [...]

Yoshio shrugged. [...] Who makes that decision? Governments like America? [...] Or do we decide instead?” [...]

“But you’re talking about bribing the global police,” Laura said. “That sounds like a coup d’etat!”

[...Yoshio:] “Why work through governments anymore? Let’s cut out the middleman” [...]

“Let me get this straight,” Laura said. “You’re talking about a corporate army, without any legal national backing, invading sovereign nations?” (Sterling 1989: 178-79).

Corporate militarism then transforms national sovereignty into diverse conglomerates where fear and terror become the elements of cohesion, a classic cyberpunk dystopia that, mingled with cybernetic ubiquity, depicts the domination of politics through a powerhouse mastery of information, global wealth and brute force. As commonly depicted in cyberpunk, patriarchal structures make use of computer technology to update their traditional forms of domination, this time through corporate (computer) power rather than through the state military.

In this regard, Egan’s *Permutation City* shows an introductory stage in which a series of power-related paranoias, associated with the safeguarding of financial and material treasures, negatively impacts the lives of common people. Corporations are presented as accomplices of governments and in opposition to the individual’s minor power. There exists a constant struggle of the ordinary people with corporate dominion and with governmental harassment, both empowered by the egotistical

decisions of the dark figures who pull the strings of financial legislations in favor of their own interests.

As pointed in the previous section, the correlation between money and longevity constitutes a vicious circle in which, on the one hand, survival depends on the perpetuity of trust funds, while on the other, disembodied minds (hyperbolic allegories of recondite CEOs) remain desperately alive within computer networks so as to control financial regulations. In this manner, the prime objective of mind-scanning technologies and the ensuing creation of Copies is to keep control over corporate decision-making and thus manipulate society draconically: “There are God-knows-how-many- thousand Copies in existence, *right now* – running half the biggest corporations in the world, in case you hadn't noticed” (Egan 1994: 86, italics in original). Corporations are then imbued with the anxieties and suspiciousness of these thanatophobic entrepreneurs, a condition that generates a constant strain regarding the legality of their virtual identities, which makes an inextricable bond between legislation and patriarchal obsessions about power:

Permutation City canvasses some interesting probabilities, especially those relating to the legal status of the Copies, who, obviously enough, have a vested financial interest in remaining legally alive and therefore in control of the fortunes needed to maintain their virtual selves. (An analogous legal problem exists in *Neuromancer* for 3Jane, cloned at the orbiting Villa Straylight.) In *Permutation City*, the Copies, or metacharacters, act out endless permutations of their metalives, until the virtual construct begins to collapse (Webb 2000: 167).

In this regard, corporations and Copies stage a framework of constant espionage and financial control, and, in this way, they create a disastrous dystopia in which shortage and financial paranoia threatens to spark a global war for natural resources, wealth and computer power: “[Paul] feeds [the disembodied Copies of rich people] a long spiel about the *coming dark age*, when the unwashed masses will no longer put up with being lorded over by rich immortals – and evil socialist governments will

confiscate all the supercomputers for weather control” (114, my emphasis). This menace constitutes a constant in the embryonic stages of the novel, the reason why Durham attempts to build a scarcity-safe haven in the first place whereby the rich (mainly) will no longer need a material infrastructure such as hardware or a physical body to retain their power and consciousness.

Thus, in *Permutation City*, corporations exhibit a frantic urge to build impregnable fortresses in response to the precarious situation of countless Copies who dwell within endangered computer networks susceptible of deletion or requisition at any moment by stringent governments or by social upheavals. In this regard, the cyberpunk facet of the novel underlines the corporate obsession for the construction of virtual strongholds and urban enclosures in which institutional power seals and controls commercial operations and financial legislations:

Cyberpunk almost always has an ever powerful controlling entity that directs society. Most often this is represented as a corporation. Some times it’s simply an ever present singular government. A common theme for corporate control involves a futuristic dystopia, where the last traces of high civilization exist only in an enclosed and protected city, where civil liberties are removed under the guise of protecting humanity (SFAM 2010: web).

In this very manner, Durham’s mysterious plan arises governmental apprehensions and elicits a diligent crusade against his project which involves an entire fraud squad that audits and harasses all of his movements. In this manner, Durham’s enterprise embodies the struggle of individualistic private projects against corporations and governments. By means of frauds and abuses, these governments gain control on ordinary people’s undertakings, and hence curtail their enterprises. Furthermore, the governmental hunt for cybernetic crimes and the imposition of unreasonable means of control are responsible for the lack of freedom imposed by the oligarchies upon private sectors, as exemplified by the ‘official’ discourse of the fraud units:

“Durham could be charged with defrauding the executors of the estates, by means of supplying misleading data to the software they use to advise them. There are precedents for that; it's like publishing false prospectus information that causes automated share-buying programs to buy your stock. But there's still the question of evidence. We [the fraud squad,] can interview Copies as an informal source of information, to guide an investigation, but nothing they say will stand up in court” (112).

The series of well-known fraud techniques portrayed by Egan is associated with social paranoia and with financial dystopias in which individual progress is thwarted. Nevertheless, the bleak atmospheres inherited from classic cyberpunk (associated with corporate power and currency) are eventually replaced by innovative projects such as Durham and Maria's and with socialist paradigms, all of which search for fulfilling lifestyles accessible to all and unaffected by materialistic restraints. The initial preoccupations about wealth and corporate control are later disregarded in favor of the examination of transcendental issues such as the nature of knowledge and perception, the functioning and origin of the universe and the meaning of mortality. In this manner, postcyberpunk endeavors to show a world of extravagant contrasts that once formed part of sf narratives but which currently reflect the composite nature of the world we live in.

II.1.3 Body anxiety, immortality and identity: the power of virtual settings as magnifiers of consciousness

“What a drag it is getting old”.
The Rolling Stones, “Mother’s Little Helper”.

Many are the texts in cyberpunk that deal with the fear of death, the decay of the body, and diverse technologies engaged in counteracting the effects of these conditions in a Cartesian effort to separate the body and the mind. Science fiction has come forth to remind us of the issues long forgotten by mainstream philosophy and literature in regard to the definition of human nature or what it means to be human. Far from being proof of our solid imagination, science fiction’s “deepest vocation is over and over again to demonstrate and to dramatize our incapacity to imagine the future” (Jameson 1982: 153); yet, more than that, the importance of sf lies on its capacity for constructing hyperboles that confront us with and teach us about the most relevant aspects of our own nature.

In this regard, cyberpunk focuses on ontology and identity in a way other branches of science fiction failed to do: the Cartesian divide between mind and body allegorized by the cybernetic motif that identifies the software with the mind and the hardware with the body (or wetware). Cyberpunk thus regards the body as a piece of machinery likely to be enhanced through robotic embeds or digital implants, and the mind as a mathematical abstraction trapped in a perishable piece of flesh, a notion that dates from the outset of modern times, when “Descartes declared the body a ‘machine’, making it nonmind, [...and] the prison of the mind [..., and which later] Pascal [...] termed it the ‘human condition’, the claustrophobic fate of humanity without God” (Slusser 2005: 29). In this respect, a variety of authors started a debate

to assert which of these two components (or others) stand for human identity. Whereas for Sabine Heuser identity lies in the information that an individual possesses, inasmuch as “memories can be treated as software and on the same level with computer programs, which are allegedly independent of the material information carrier” (2003: 201), for Scott Bukatman “SF [...] offer[s] up a series of provisional conclusions to the problem of human definition. The subject is the *body*, mutable and mutated. The subject is the *mind*, thinking and cognizing. The subject is its *memory*, recalling history and experience” (1993: 244, italics in original).

And although sf had long approached the correlated issues of identity and mortality, only cyberpunk and its derivatives provided diverse cybernetic alternatives to these ontologies mainly as disembodiment, cyborg technologies, bionano-tech, genetic engineering and cloning. Classic works such as the novel *Neuromancer* and Japanese franchise *Ghost in the Shell* team with AIs and cybernetic ghosts inhabiting computer networks, which provide humankind with a model of disembodied immortality and enhanced awareness. As mentioned, Gibson’s *Sprawl Trilogy* praises incorporeal existence and scoffs at the decaying body. Since the advent of cyberpunk, then, computer technology has been hailed as the ultimate substitute for the medieval alchemists’ fantasies about eternal life and youth, to which postcyberpunk narratives replied by exploring countless possibilities of life extension and the preservation of consciousness as the key assembler of identity and cohesive cognizance: “Cyberpunk was giving way to what might be seen as its natural successor, a fiction of posthumanity in which identity and often environment are uploaded into advanced computer systems. [...] The most fanciful bodies or environments can be tried and discarded at will, and death is no longer permanent” (Kincaid 2009: 176).

In this regard, scenarios like Richard Morgan's 2002 novel *Altered Carbon* introduce all sorts of hyperboles about transcendental, social and economic issues. In this work body and mind are described as discrete and interchangeable elements and regarded as an assemblage of replaceable spare parts; brainless bodies and their parts amount to saleable merchandise, whereas the mind can be uploaded into empty bodies (natural or artificial 'sleeves') or grafted with artificial or strange memories and data: "Moments in the head of a fashion-house princess, the ideas of a particle theorist, memories from a king's childhood. There's a market for this stuff" (Morgan 2002: 54). Treated as commodities, the discrete cybernetic version of the body and the mind can play a diversity of ontological roles: interchange gender behaviors, be resurrected or stored away, aim at immortality, provoke religious controversies ("[They] want to subpoena a Catholic who's in storage. Pivotal witness. The Vatican say she's already dead and in the hands of God. They're calling it a blasphemy" (Morgan 2002: 16)), induce 'meat puppet' type of prostitution⁴¹, experience death as a drug, imprison the mind⁴², and produce perennial pleasure and torture. Morgan thus pictures a quasi-cyberpunk setting in which humankind comes across a cybernetic manner to rebuff death without recurring to classic cyberspace disembodiment, yet he is also conscious of the necessity of the mind to possess a body that provides it with meaning and that allows the subject to retain his/her sense of wonder, pleasure and instincts, the impulses "that makes us human" in the first place (Wachowski 1999: film).

⁴¹ Similar to the case of bodyguard Molly in *Neuromancer*, whose body implants are paid with the money she made as a 'meat puppet' prostitute. Her mind gets temporarily ousted from her body which, in turn, is loaded with another person's mind. In Morgan's novel, bodies can be rented and packed with discrete interchangeable minds so as to be used for pleasure at will.

⁴² The mind of Morgan's main character, Takeshi Kovacs, is expelled from his body, imprisoned and conveyed to a distant interstellar colony on a faster-than-light digital transmission from Earth and implanted in a surrogate body. A similar case occurs in the 1993 film *Demolition Man*, in which Sylvester Stallone is cryogenically imprisoned in a suspended animation and 'resurrected' years later, thus confronting him with an unfamiliarized setting of his own country.

In this manner, Morgan appears to suggest that identity lies in the amalgamation of the consciousness and its 'interface' with the world (the body), a way to reify the abstractions of an ideal world into the inescapable sphere of matter, a Nietzschean view that sees identity as the holistic experience of existence, the body as a unit in which the mind (or soul) is another component and without which it lacks sense and meaning: "Body am I entirely, and nothing more; and soul is only the name of something in the body" (Nietzsche [1883] 2010: 19). Although Morgan's approach to extreme longevity or immortality is dictated by people's desires for pleasures or pure fear, it also indicates that the diverse fantasies about the endurance of subjectivity are related to an instinctive impulse to preserve the whole set of perceptions, knowledge and memories, all of which is determined by the structure of the body, its gender, shape, race, ethnicity, abilities and even social class. The novel provides various examples such as when the mind of a male individual is inserted in the body of a woman, thus obliging him to perceive, behave, think and be regarded by others as such. This becomes an overt instance in which the body takes part in the construction of personality and identity. In the same manner, placing the mind of a person in a strange body *per se* confronts the subject with a new set of circumstances that modifies his/her vision, behavior and perception.

Another conspicuous example dealing with body cloning and mind uploading is represented by *The 6th Day* (2000), a distressing film that faces us with a possible setting in which real doppelgängers live the life of individuals, since cloning technologies allow for the existence of two exact replicas of the same subject. In this manner, identity becomes problematic as two individuals or more may possess the same memories, information, experiences, job and family, as happens to Gibson (Schwarzenegger), who ignores there is a clone copy of himself. Not only the legal

problems that these cloning techniques provoke but the fact that two individuals with precisely the same identity (mind included) end up having similar views and behaviors implies the idea of a holistic and communal interpretation of identity, especially when one of the clones is willing to die after learning that the other can outlive him and hence protect and protract ‘their’ consciousness.

Thus, the film suggests not only that identity and personality amount to the sum of the parts of a whole (perceptions, intuition, mind, gender, body), but that both are also the product of a swarm system in which individuals contribute to a global consciousness like that of ant or bee colonies. As a result, immortality is supplied by a process of bequeathal, a way to preserve the information and experiences (and also the physique) of a given specimen through a multiplicity of generations, what Fischer and Curl identify as an ‘nonatomistic’ type of immortality:

We turn now to depictions of immortality pertaining to sentient entities, beginning with a distinction between *nonatomistic* and *atomistic* concepts of immortality. The former involves a kind of *fusion* of different individuals into a type of immortal entity; the latter involves the immortality of individuals. The nonatomistic model usually involves the merging of various individuals into some sort of superorganism (Fischer 1996: 5, italics in original).

Nevertheless, such resulting superorganisms, a hive consciousness, constitute a further complication in regard to identity as individual awareness disappears with the death of the specimen who suffers the loss of continuity and personality while a ‘floating’ general consciousness is passed on from a massive body into a younger one. In this sense, individuals are mere ‘puppets’ or pawns of a greater compound whose only objective is the preservation of collective consciousness, as the case of the Drummers. Individual free-will and identity are then forfeited in favor of the survival of a family or a society.

On the other hand, the 1995 film *The Net*, for example, describes identity as a social process derived from bureaucratic paperwork that acknowledges (or not) the existence of the subject, a condition that is aggravated by the stringent employment of computers that determines the social perpetuation or the collapse of an individual. In the film, Angela Bennett's (Sandra Bullock) legal status is manipulated by a deranged corporate headman who deletes her personal ID files from the government's databases and obliterates her official identity, thus exerting a direct influence on her life and worldviews. This radical situation prompts her to meditate about the nature of her identity and encourages her to scour through her personal attributes in search of her individuality. She finally pinpoints the elements (the spiritual and the legal ones, her ID data) that represent her true self, which will restore her social identity and her legal status as a citizen. In contrast with Stephen O'Leary's claims that "computer networks have been hailed as sites for the revival of democratic public culture" (1996: 781), these grids are usually regarded as noxious influences over the destiny, views and fates of ordinary, helpless subjects. The premise of the film lies then in that identity and destiny are dictated by cyberspace data, a source of external governance that determines somehow the structure of the self and which constitutes an aggressive setting in which a person's identity is vulnerable to deletion. The film's conclusion is that resilience, resistance and intellectual skills represent the only instruments against institutional dominion and become important components of identity in times of cybernetic pervasiveness.

Two other examples describe how disembodiment, artificial intelligence and the contents of the mind regarded as transferable data establish points of reference that question the essence of identity: the 1995 anime *Ghost in the Shell* and the 1998 *X-Files* episode *Kill Switch* written by William Gibson. In the former, an AI develops

sapience and independence by garnering a vast amount of information in diverse networks, after which it turns into a ‘rebel child’, a artificial mind that defies the power of its creator (governmental institutions) and hacks the minds of ordinary people so as to create an instable atmosphere. Like HAL, the hyperintelligent computer of the film *2001: A Space Odyssey* who takes over the ‘Jupiter Mission’ that will uncover the origins of human consciousness, the AI (aka the Puppet Master) in *Ghost in the Shell* aims at taking control of its own ‘life’ and fate, for which it struggles against authority and ends up sabotaging a number of projects. The Puppet Master’s desire is to merge with diverse human minds and attain a sexual type of reproduction, contrary to just copying itself, in order to develop a superintelligent mind with an unequaled performance.

Kill Switch, on the contrary, a group of hackers struggle against a seditious and arrogant AI who has killed the scientist who created it: “Como buen hijo de Frankenstein, el IA decidió independizarse” (Martín 2006: 285). Two of the hackers (also lovers) find the way to dump their bodiless consciousness in a computer network: “Tan hija de Frankenstein como el IA, en vista de la pérdida física de su amado Esther [la hacker] decide desobedecer la prohibición [...] aprovechando la ocasión le da al IA lo que quiere [el virus que lo eliminaría] a cambio de desaparecer en la red para encontrarse con David como si fueran unos nuevos Adán y Eva del ciberespacio” (Martín 2006: 285). Both examples, *Ghost in the Shell* and *Kill Switch*, attempt to show the nature of identity not in terms of the preservation of a single consciousness, but as a state assembled by multiple entities for whom physicality becomes a hindrance to psychic evolution. For these two works, identity amounts to a series of regenerating sets of disembodied data (both derived from fusions and swarming reproduction) that, in the long run, will allow enable humanity to answer

transcendental questions other than the definition of identity itself. Thus, the disembodied nature of the AIs of these films (what defines identity as abstract and purely informational) opposes the impediments of the body and, instead, become an opportunity to solve “questions that only a [disembodied] Copy could answer” (Egan 1994: 33).

In this sense, *Permutation City* also describes the body as a handicap and a decaying shell that brings perception and awareness to an end once dead. Furthermore, the book takes full advantage of disembodiment as a method to explore diverse cognitive fields such as quantum theories and ontology, since, as Gray and Driscoll state, Egan’s descriptions of incorporeal information and cyberspace technologies not only “make the body obsolete [and] destroy subjectivity, [but also] create new worlds and universes, change the economic and political future of humanity, and even lead to a posthuman order” (1992: 39).

The obsolescence of the body described in *Permutation City* constitutes a blatant legacy from cyberpunk’s approach to the issues of physicality which deal with, on the one hand, body-anxieties and thanatophobia and, on the other, with an aversion toward the flesh seen as a putrefying burden that creates a psychological complex which Russell Blackford regards this as an “irresponsible fantasy of escape from the limitations of the body” (2005: 449), an observation that contrasts with Porush’s observations of cyberpunk’s frantic eulogies about disembodiment: “one of Gibson’s most striking descriptions of cyberspace is the ‘bodiless exultation’ of those who inhabit it” (1992: 56). Cyberpunk’s approaches to the issues of the body contrast enormously since, on the one hand, it is delighted by the idea of cyberspace disembodiment while, on the other, it describes hypersexual androids and cyborgs who extol the capabilities of the body. Nonetheless, one thing that these postures have

in common is that both aim at the selfish empowerment of the self and the preservation of the mind that pilots either the digital or the material world.

Egan's work is notorious for its contempt of the body, magnified, for instance, by its depictions of sex as ridiculous and painful, "meaningless, faintly absurd" (168), or by the constant derision that the Copies make of eroticism and of mortality, all of which contrasts with the novel's extolment of disembodiment and deathlessness: "What was the point of being scanned, only to remain enslaved by an obsolete respect for the body's fragility? Having triumphed over mortality [...]? Every biological instinct [...] about the nature of survival had been rendered absurd" (94). Egan's stance about the body contrasts entirely with that of Morgan's, since no holistic view of the self, no bodily pleasures or rationalistic perceptions are ever present in *Permutation City*, and, hence, his material anxieties are never soothed. Egan regards matter and the body as heavy and decaying imprisonments for the human consciousness and thus devises an alternative that consists in the creation of a discrete cybernetic universe where no material bonds are ever present. In this environment, the immortality and self-replication of consciousness relies on the Dust Hypothesis, a series of axioms that equal the infiniteness and self-replication of mathematical algorithms with that of the existing elements of the self-reproducing universe created by Egan. In this manner, the perpetuity of patterns is what provides a sense of continuity and everlastingness in a mathematical realm in which information (and thus the algorithms associated with it) is the raw material that forms either the most simplistic or the most complex cognitive systems. In this regard, "the contrast between the body's limitations and cyberspace's power," Katherine Hayles suggests, "highlights the advantages of pattern over presence. As long as the pattern endures, one has attained a kind of immortality" (1993: 82).

In this regard, in opposition to Egan's proposal, Neal Stephenson's envisions a setting in which nanotech and biotech are responsible for the perpetuation of a bio-social superorganism, an *nonatomistic* model of immortality in which the individual stands solely as a cell of the whole, thus favoring extropianism⁴³ over disembodiment. On the contrary, *Permutation City's* body-anxiety constitutes a prejudice against the body and makes uses of several metonymies (such as the identification of hardware with materiality) to emphasize its contempt for the physical world. Eugene Thacker identifies this as the contrast between extropianism and posthumanism by means of the analysis of opposing forces such as biotech and virtuality:

Instead of being focused on disembodiment and virtuality, biotech research's approach to informatics is toward the capacities of information to materialize bodies (bodies amenable to current paradigms of medicine and health care). [...] In contradistinction to the discourses of posthumanism that seek to dematerialize the body (into software Minds, into informational networks), research in biotechnology presents us with a case in which informatic essentialism is utilized to redefine biological materiality [...]. To put it another way, *biotech has no body-anxiety* (2003: 88-89, emphasis added).

In Egan's narrative there appears to be a threefold correlation between ageing, psychological maturation and mortality, all of which compel humans to understand the meaning of finite life and the evolution of perception by means of a drastic confrontation with the inescapable degradation of the mind. In this sense, Egan underscores the need for longevity as a means to achieve psychological maturity, yet he stresses the fact that age does not *per se* bring about maturation. Only a blend of intelligence and meditation will produce psychic evolution: “[Thomas] was ninety years old by one measure, eighty-five-and-a-half by another – and he still didn't know

⁴³ Extropianism relates to the continuing development of a type of technology that will perpetuate human life; the OED defines it as “the pseudoscientific principle that life will expand indefinitely and in an orderly, progressive way throughout the entire universe by the means of human intelligence and technology”, while the 21st Century Lexicon defines it as “the theory that cultural and technological development will expand indefinitely and in an orderly progressive manner throughout the universe, the tendency of systems to grow more organized”.

how to live” (76). In this manner, *Permutation City* accentuates the necessity of posthuman resources, something that is beyond the human, to broaden our views about the meaning of our actions. Full of oxymorons and paradoxes, immortality and longevity are presented as a set of nonhuman (posthuman) elements that, although once taken as mechanisms against death, now represent a method to increase consciousness as well as a means to alter the human principles that shape our limited scopes and worldviews; after all “human immortality is a paradox. To be human is to be mortal; to be immortal is to be something other than human” (Lee 1996: 17).

Immortality is thus presented as a set of defamiliarized, awkward circumstances, and, more than a far-fetched fantasy, represents an opportunity for humankind to reconsider the very nature of its restricted condition and of the inevitable but necessary bond between body and mind. This is accentuated by the fact that even the disembodied ghosts (Copies) recur to bodily expressions and a physical presence to communicate and exist, and, although these consciousnesses inhabit a virtual setting, they are attached to a form of ‘un-decomposable’ inorganic frame that performs as a body. None of these figures becomes an entirely disembodied entity like the Puppet Master in *Ghost in the Shell*, an entity whose abstract essence bears no apparent connection with human form, the reason why it’s never shown as a real character.

The type of disembodiment shown in *Permutation City* resembles Timothy Leary’s descriptions of cyberspace as an enhancement of a subject’s consciousness as opposed to the representations of bodiless spirits like that of *Ghost in the Shell* or the eponymous AI in *Neuromancer*. The experience as a Copy then becomes addictive not only because it constitutes a reification of immortality, but because of the magnification of awareness and the time that a subject possesses to muse about

transcendental issues, a similar effect provided by psychedelic drugs when used as consciousness expanders since “addiction, as a relationship of repetitious exchange and bodily subsumption by the drug, code, allows one to produce simulacra effects of disembodiment, life extension, and suprahuman powers” (Weinstone 1997: 79).

In this manner, *Permutation City* holds a strong bond with *Groundhog Day* in that both introduce diverse types of god-like disembodied consciousness originated in the repetition of patterns from which transcendental knowledge can be gleaned. Nevertheless, *Permutation City* views the body as an entrapment and a bond that drags awareness into death and that hinders the developments of massive noospheeres⁴⁴ that shelter and nurse consciousness, all of which represents the reason why the second part of the novel occurs entirely within a virtual setting that shows no attachment to the material world that we know.

It is clear then that Egan’s fear to materiality is not only that of the death of the physical body (to which the mental death ensues), but also, and most important, the creation of a global or communal consciousness that would enable humankind to finally answer the questions that have haunted it for such a long time, such as the meaning of life, the origin of our consciousness or of our universe, our place within the cosmos or the nature of the chemical elements. Like Stephenson and Bear (as we’ll see later), Egan envisions the use of computer technologies to create the long-wanted noosphere, a notion that bears a similitude with the philosopher’s stone and the panacea in medieval thought.

⁴⁴ Noosphere, defined by the OED as “a postulated sphere or stage of evolutionary development dominated by consciousness, the mind, and interpersonal relationships (frequently with reference to the writings of Teilhard de Chardin)”. The noosphere is an abstraction referring to the realm in which consciousness lives and finds a ground for evolution.

II.2 Cybermythologies: Immortality, religion and perception in *Permutation City* and other works

II.2.1 *Permutation City* and *The Matrix*: The influence of Gnosticism, Platonism and Baudrillardism on virtual constructs

Cyberpunk and postcyberpunk make use of a diversity of virtual realities and computer networks to create a variety of allegories and powerful cognitive situations. The alternate spaces described in sources such as *Permutation City*, as a whole, represent alien settings that, like the ‘other’, confront us with hyperboles and myths that question human nature and social behavior. Like Wonderland or the Land of Oz, the predecessors of these virtual backdrops, the purpose of these alternate worlds is to propose the possibility of existence in other planes and in diverse forms, but in this case by means of feasible technology.

As noted, in *Simulacron 3*, *Permutation City*, *The Matrix* franchise and also in the 1999 TV series *Harsh Realm* the presence of virtual settings accomplishes a series of specialized functions, including those of scientific simulacra, paranoid surveillance, mind control, military simulators and marketing observation. These universes also instigate the unfolding of an individual’s personality in a double sense of existence, on the one hand, their physical body, and on the other, their doppelgänger or avatar, the alter ego whose ‘double vision’, as Haraway puts it, broadens his scopes and potentials in one way or another. In this respect, *Harsh Realm*’s post-nuclear military virtual simulator (a computer generated world like the Matrix) intends to teach civilians and military personnel about corruption and ruthlessness through a defamiliarized setting that contrasts with the classic martial strategies. In this manner,

these characters are given psychological training in a brutal scenario which will turn them into shrewd and resilient fighters.

This type of alternate worlds have a transcendental, educational purpose insofar as they juggle with diverse pedagogic elements that put the subject into contact with a strange space that forces him to reconsider his own nature and his skills. In other words, these simulators constitute efficient didactic methods, like in *The Diamond Age*. The individual is, at the same time, acquainted with and estranged from his own self and from his accustomed locales. These simulations divide the perception and the personality of the individual and produce a fissure in his integrity and his position according to his environment, what Foucault recognizes as ‘heterotopias’, a set of present/absent places that deconstruct and put together identity and perception at the same time by means of its mirroring, didactic powers:

The mirror is, after all, a utopia, since it is a placeless place. In the mirror, I see myself there where I am not, in an unreal, virtual space that opens up behind the surface; I am over there, there where I am not, a sort of shadow that gives my own visibility to myself, that enables me to see myself there where I am absent: such is the utopia of the mirror. But it is also a heterotopia in so far as the mirror does exist in reality, where it exerts a sort of counteraction on the position that I occupy. From the standpoint of the mirror I discover my absence from the place where I am since I see myself over there. Starting from this gaze that is, as it were, directed toward me, from the ground of this virtual space that is on the other side of the glass, I come back toward myself; I begin again to direct my eyes toward myself and to reconstitute myself there where I am (1967: web).

These heterotopias, present in every culture according to Foucault, are part of cyberpunk in a variety of shapes such as cyberspace, virtual reality, memory or data havens, state-of-the-art health care centers, wetwares (as seen in *The Diamond Age*), noospheres or oneiro-spaces (as we’ll see in Chapter III). Heterotopias have also been used as theoretical frameworks in the analysis of prison-like societies (panopticons), and other social phenomena such as those analyzed by postcolonial studies; its taxonomical subdivision provides a rich set of varieties that describe the purpose of

‘alternate spaces’ in regard to their social focus: “Foucault in ‘Other Spaces’ divides heterotopias into crisis heterotopias (boarding schools and honeymoons), heterotopias of deviance (rest homes and prisons), heterotopias of illusion (nineteenth-century brothels), and [...] heterotopias of compensation (colonies)” (Chun 2006: 52). These types of heterotopias are crucial in the examination of perception and control within cyberpunk.

More than cyberspaces that resemble financial parklands or classic cyberpunk dominating computer networks, the heterotopias of illusion presented by Egan, Galouye or the Wachowskis take the shape of immersive virtual realities, simulators that serve specific purposes and convey diverse philosophical and religious ideologies. These alternate worlds stand as hyperboles that confront humankind with new mythologies that scrutinize issues such as the nature of perception, institutional manipulation, free-will or the meaning of life. As postmodern implements, these heterotopias reflect the polymorphic essence of our current times by juxtaposing, for instance, religious views with innovative philosophies or, more specifically, subjective idealism with capitalistic doctrines. *The Matrix* franchise, for example, constitutes a ground where diverse philosophies blend together and which makes use of diverse quaint objects (a proof of the multifariousness of this postmodern ambience) to remind us of the ideological diversity that compose our current complex societies:

The ‘low tech’ form of representation which characterized *Tron* (a mannerist simulation that announces itself as such), is henceforth absorbed [in *The Matrix*] into the very contents of the representation: black Bakelite retro telephones, a Fifties television set, a dark abandoned building, portraying an imaginary that evokes *Batman* and *Blade Runner*. As if to remind us through tiny hints that simulation is something that may also be cobbled together from scraps. Simulation is not an singular condition [sic]; like software, it comes in more or less upgraded versions (During 2006: 141).

The multifaceted spirit of these simulations is directly associated with the new meaning that diverse philosophical and religious theories acquire as converted into modern mythologies. In this regard, *Permutation City* and *The Matrix* both represent two different polarities of the same perspective: while the former follows a classic Platonic scheme in which the alternative utopian universe represents an ideal world of knowledge and disembodiment, the latter depicts a Baudrillardian virtual environment of illusion which deceives people into believing that their showy, swanky world is authentic and actual, when in reality it is a nightmarish dystopia. This represents one of the most hackneyed ideas among the critics of the *Matrix* trilogy, which, unfortunately, have always been misunderstood and misapplied.

Criticism has positively proved that the Matricians live in an illusory world from which they need to wake in order to achieve illumination (a platonic narrative), and thus disobey the tenets imposed by this capitalist pseudo-utopia. “It’s easy to think that [*The Matrix*] is a Gnostic, Buddhist or Platonic/Christian parable,” Dreyfus states, “in which what we take to be reality is an illusion, and we have to wake from the world of appearances to some kind of higher spiritual reality. On this reading, Neo would lead people out of the illusions of Plato’s cave, the veil of Maya, or the darkness of the world into a disembodied eternal life” (Dreyfus 2002: web). Nevertheless, a truly platonic discourse must be linked to the ideals of perfection and illumination, and not to a delusory construct like the one described in *The Matrix*. The film represents not a platonic allegory in itself, but actually a Baudrillardian setting that depicts our capitalistic utopias as mere illusions and for which reality is a hideous environment that contrasts with the poshness and the showiness of the spurious world displayed before our eyes. In addition, the attractiveness of the illusory world

(associated with the splendor of capitalistic lifestyles) is what outshines the bleakness and desolation of the reality outside the simulation, all of which constitutes the reason why most people prefer to inhabit in a cozy realm of comfort where ‘ignorance is bliss’ rather than in a world of efforts and daily struggle. “*The Matrix*,” Daniel Dinello writes, “challenges us with a philosophical problem: Is it better to rage against the machine and live as a free and informed, but lonely and deprived, individual outside the virtual reality womb? Or is it better to live in ‘decadence’ within the relatively plush but totally simulated and machine-controlled theater of the matrix?” (2005: 177).

Nevertheless, the bottom line of these criticisms lies on the fact that, linked to a cyberpunk capitalistic framework, humankind is the target of delusion and manipulation, a ‘heterotopia of illusion’ that prompts for a series of philosophical analyses. The atmospheres of *Permutation City* and *The Matrix*, for instance, present antithetical approaches to the issue of capitalistic deceit. Whereas the former departs from a capitalistic infrastructure and then moves Platonically into the world of disembodied ideas, enhanced consciousness and transcendental thought, the latter presents a capitalistic dream-world of illusion and deception which is subsequently uncovered as a capitalistic fallacy. In this manner, the only attribute of the film truly associated with Platonism consists of its deceitful atmosphere; other than that, the films never deal with ideal discrete universes, perfection or a world of pure forms. Whereas *Permutation City* actually constitutes a platonic backdrop (with a world of ideas and pure forms), *The Matrix*, according to critics such as Stephen Faller, stands closer to a Gnostic approach to subjectivity:

In Gnostic beliefs, for example, the devil-figure created the world as a means of enslaving humanity, and that kind of cosmology would explain the Architect [in *The Matrix*] perfectly. The Gnostics were a loosely related group of people who believed that knowledge (hence the name Gnostic) was the decisive factor in

setting people free. The seemingly physical world (roughly translated as virtual) was considered evil, and the spiritual, immaterial world was good (Faller 2004: 27).

For the Gnostic and Neoplatonic philosophers the figure of the demiurge represent different things; while for the former it is an evil creator of the imperfect material world, for the latter it is the deity that transforms material creation into an environment of perceivable objects. In *The Matrix*, this devilish being is embodied in the form of manipulative machines who, as noted, stand for corporate power. Nevertheless, these evil entities also exert influence in the people's perception of the world; while in *Permutation City* corporations are responsible for the emanation of ideology in the material world and awakening or illumination is given when a person's mind enter the ideal world of the virtual⁴⁵, in *The Matrix* such deceiving ideology is displayed within the realm of the simulation and illumination signifies to return to the material world. Thus, the franchise's nomenclature is closer to Gnosticism than to Platonism, in so far as expressions such as 'return to the source' or 'the One' are related to the Gnostic way of awakening from such delusions.

Another example of the influence of these philosophies on the films is provided by the names of the hovercrafts (shuttles) that these characters drive, like 'The Logos', a name that stands for what the Neoplatonics saw as mediation between the Soul and the One (God). The Logos is the ship by which Neo reaches the forbidden city of the machines, the place where ideologies emanate, and thus represents the interconnection between the man (Neo, an anagram of 'The One') and

⁴⁵ *Permutation City*'s second part, which happens all in the virtual construct, starts with Maria awakening in a plush hotel room, a symbol of the 'perfection' of such an ideal world in which illumination is given to a subject by the mere fact of entering it: "Maria woke from a dreamless sleep. [...] Everything appeared unnaturally pristine, unsullied by human habitation, like an expensive hotel room" (182). With this, it is implied that the ideal world in which existence started pertains to an ideal undamaged level to which conscious entities return after acquiring gnosis.

those inaccessible entities that govern the films' universe. In a shift of meaning, Neo is the One, the infinite being beyond all objects, whereas the Machines are the created objects that dwell in the world of materiality. Moreover, the Christian association of Neo with the Messiah (Christ) constitutes a cybernetic allegory of the New Testament as Neo drives the Logos to the Machine City:

Neo pilots the Logos to the machine city and 'logos' means word. And so what he's doing is he's bringing this word to the machine city, and the fact that Rama-Kandra [a character] there deliberately says that 'karma' and 'love' are words then maybe these are the things that Neo is bringing to the machine world (Wagner 2004: documentary).

In this manner, what Neo brings to the corporate world of machines is not only the kind of love that Christ preached in order to redeem humankind from primeval sins, but he is also conveying carnal love (he performs sex before this trip with Trinity), disobedience and 'animality', or the intuition and bodily joyfulness that those corporate automata need in order to reconsider and relinquish their ruthlessness and their lack of a transcendental purpose. All this constitutes a narrative that resembles God's bestowal of forgiveness and redemption to his own creation by adopting love and leaving behind the wrath and the 'eye for an eye' policies that reigned through the Old Testament. Returning to the 'Source' does not mean to enter the heavenly vault where the Architect dwells, but taking the machines to a world of animality, materiality, intuition, love, and bodily and spiritual exultation. Furthermore, such traits (all associated with human nature) are all linked with a feminine womb, represented by an enclave in the entrails of the earth (Zion) from which Neo departs to take his 'words'. In order to overcome the materialistic view of the machines (an their vengeful spirit), the films prompt for a Gnostic awakening as a way of illumination:

Both the trilogy and the Gnostic texts from Nag Hammadi describe the fundamental human problem by using the same metaphorical terms: blindness, sleep, ignorance, and darkness. Similarly, on both the [*Matrix*] films and in Gnosticism, the solution is stated in terms of seeing, awakening, knowledge (gnosis), waking from dreams, and light. [...] The solution is that Neo needs to wake up from the dream, just as Gnostics learn that sensory perception in the material realm is not reality (Wagner 2005: 266-67).

Within this blend of Neoplatonism and Gnosticism in which *The Matrix*, *Permutation City* and *Simulacron 3* are involved, a ‘divine’ emanation (or cohesive ideology) permeates the inhabitants of the virtual constructs, as if they all contained the essence of an arcane power which will eventually allow them to awaken from passivity and lethargy. In this regard, in *Permutation City*, Durham, the creator of Elysium or the ideal world bestows a portion of his ‘enlightenment’ to every disembodied dweller of this sphere, what the Neoplatonic philosopher Iamblichus recognizes as the principle of divine emanation and the embodiment of the Soul in every existing being, or, in other words, the inextricable interrelation of the hypostases⁴⁶ and creatures:

The various conceptual elements in Neoplatonic philosophy can be divided first into the philosophical principles employed in articulating the system (e.g. procession and reversion) and the resulting structure itself (the sequence of hypostases descending from the One: being, life, intellect and soul) [...] expressed [...] through concrete images (e.g. the metaphor of emanation) (Gersh 1978: 5-6).

Whereas *The Matrix* succeeds in interweaving Neoplatonism and Gnosticism (and other philosophies), Egan rather inclines toward a blend of Aristotelianism and Platonism, perhaps condensed into a Scholastic approach to the issues of cosmogony and existence. In this regard, the presence of generated virtual landscapes, for instance, allows him to ‘rehearse’ (or recreate) the origin of the universe as dictated by these ancient philosophers. For Aristotle, and later also for Thomas Aquinas, the

⁴⁶ In Neoplatonic philosophy, the hypostasis represents the union of The One, Intellect and Soul, whereas in Christian thought the term was translated as the fusion of the Father, the Son and the Holy Ghost. See Wallis 1992: 57-61.

ultimate world is eternal (like Durham's perpetual ambience) and first propelled by an 'unmoved mover', a theory that resembles Egan's arguments about the commencement of any type of universe. When Egan alludes to a 'Garden-of-Eden configuration' as the commencement of any cybernetic domain, he refers to the pristine state of any universe or "a state of the system that can't be the result of any previous state" (140), and although he makes use of Christian metaphors (as we'll see later), Egan's thought is merely Aristotelian as a whole inasmuch as his primeval cosmos (moved by an unmoved mover), once in motion, will never end and will construct an eternal 'ultimate heaven'. "There is something which is eternally moved with an unceasing motion [...]. This is evident not merely in theory, but in fact. Therefore the 'ultimate heaven' must be eternal. Then there is also something which moves it. And since that which is moved while it moves is intermediate, there is something which moves without being moved; something eternal which is both substance and actuality" (Aristotle 1989: book 12). In this sense, the eternal moving universe that Elysium represents, a domain that the novel recognizes as formed by perennial 'dust', requires another 'universe', a discrete realm that serves as the 'unmoved mover', a separate, perhaps ideal, sphere by which the former will find motion: "Garden-of-Eden configuration [... a] state which *must* have been constructed in another world" (140, italics in original).

Yet, for the Wachowskis, Egan and Galouye, these perennial, immaterial universes actually constitute peculiar types of noospheres or abstract ideal realms where the mind grows and evolves, and which, by their very nature, appear open to manipulation by controlling forces that reside in other spaces. These heterotopias, alternate realms, somehow provoke heterochronies,

Heterotopias are most often linked to *slices in time* - which is to say that they open onto what might be termed, for the sake of symmetry, heterochronies. The

heterotopia begins to function at full capacity when men arrive at a sort of absolute break with their traditional time. This situation shows us that the cemetery is indeed a highly heterotopic place since, for the individual, the cemetery begins with this strange heterochrony, the loss of life, and with this quasi-eternity in which her permanent lot is dissolution and disappearance (Foucault 1967: web, my italics).

The temporal rupture in the psyche of the inhabitants of these virtual settings, the fissure in their feeling of continuity derives from conjectures and other mental operations that process the information gleaned from their senses: “*The Matrix* does indeed rejuvenate certain myths in mutant form, but only because the film breathes an air in which the axes of linear time—and indeed of time and space—have collapsed” (Nutu 2006: 70). In this regard, the fracture of the data flux in the characters’ psyche, sparked by an external manipulation, kindles a fissure in their sense of continuity by being in two different places at once, inasmuch as the perception of the body is interrupted when the avatar is activated and vice-versa. Since awareness, in this case, is gleaned from the data collected by the senses in both worlds (the physical or the virtual), the notions regarding transcendence or divine nature are either dictated by the mental processes controlled by the senses or actually absent from these realms. “For the denizens of the matrix,” Steven Sanders states, “there is no intellectual intuition of God as proof of the possibility of universal and necessary knowledge; the only proof of reality there are offered is what one can see, hear, smell, taste, experience for oneself” (2006: 218).

By means of these noospheres a peculiar type of phenomenology occurs (either deceiving or enlightening), as it is by means of mental processes and sensorial information that the dwellers of Permutation City arrive to transcendental conclusions such as the continuity of life in regard to the patterns of the dust that forms the entire universe. Furthermore, there appears to be a correlation between perception and the

doctrines that emanate from the powers that control these virtual worlds (usually a representation of corporate dominion), since the rules that build the ideological frameworks within the simulators are those that maintain the hegemony of those very powers. In this regard, ideological homogenization and the congruity of these rules embody a way to consolidate dominion *without raising skepticism in the dominated*. In this sense, these simulations all represent a “virtual reality, the reality that might be said to be perfectly homogenized, digitized and ‘operationalized’, [and which] substitutes for the other because it is perfect, verifiable and non-contradictory” (Baudrillard, 2003: 52). Egan, as the Wachowskis, is aware of the risks contained in these immersive, almighty simulations and this is the reason why *Permutation City* pays special attention on a work that summarizes the dangers of social simulations such as Pirandello’s *Enrico IV*, a work that, like Calderón’s *La Vida es Sueño*, tampers with the nature of reality, perception, identity and free-will in the psyche of the dramatis personae, thus making reference to other types of artificial atmospheres that appear as controllable and “non-contradictory” as these computer generated ambiances. The intertext that Pirandello’s work stands for is perhaps the historical reminder that these immersive, manipulative simulations have always existed and played a special role within the social and within politics. The first part of the novel, associated with materiality and with the dystopian corporate atmospheres are linked by the historical oppressive systems described in Pirandello’s work, while the second part of the novel, associated with disembodiment and with the Platonic, ideal atmospheres of knowledge, attempts unsuccessfully to break free from the constraints of the repression of the doctrines inherent to the human spirit.

II.2.2 Upgrading religious symbolism: cybernetic myths and digital epics.

The present section deals with the religious allegories existing in *Permutation City* and other works such as *The Matrix* franchise. The different symbols associated with Christianity and other philosophies represent an opportunity for Egan and other authors to reconsider the socio-psychological meaning of religious symbols in regard to the constitution of the human psyche and the development of history. Religious and mythological symbols are some of the intertextual sources that mold the general views of the characters in the first part of *Permutation City*, while the second part is dominated by more up-to-date philosophies such as solipsism or absurdism. The collection of these philosophies gives way to the postmodern examinations of Egan and other authors about the cybernetic and information societies described in their works associated with our current technologized state of affairs.

In this sense, in 1991 Fredric Jameson referred to cyberpunk as the utmost example of postmodern and late capitalist narratives (as mentioned in the introduction) yet without intuiting that postcyberpunk would break into scene and displace cyberpunk as the ultimate expression of postmodernism. My personal opinion differs from Jameson's in the sense that cyberpunk became a rigid formula which, due to its dystopian traits, its technophobia and its focus on essential paranoias, neglected certain topics such as reproduction, complex societal behavior, ecology or education, as argued. Postcyberpunk, on the contrary, did become the fundamental staple of postmodernism by encompassing an extraordinary variety of social and transcendental issues. In this regard, the majority of cyberpunk and postcyberpunk sources cannot be associated with a single intertextual reference that

explains their complex constructions, but rather with innumerable narratives whose meanings become upgraded as they are revisited and transformed.

Although some critiques deny to a certain extent the actual presence of postmodernism in cyberpunk and postcyberpunk, the outcome of the analyses presented in this dissertation indicates incontrovertibly the opposite. *The Matrix* franchise, for instance, presents indisputable links with the Gospels, Greek mythology, Hinduism, Buddhism, Gnosticism, Neoplatonism, Marxism, Cartesianism, and other philosophical schools such as idealism and phenomenology⁴⁷.

The Christian parallels in *The Matrix*, in particular, represent a postmodern, cybernetic upgrading of the Old and New testaments; this is constantly underscored by the innumerable analogies that identify the characters of the films with biblical personages. Neo is continuously referred to as Jesus as when Choy, a client of hacked information, calls him “You’re my savior, man, my own personal Jesus Christ”. Later, by his self-sacrifice at the end of the films (a resemblance of Jesus’ execution), he redeems his people from ancestral sins, thus making a new covenant with the unseen ‘deity’, an agreement based on love and not on wrath, as mentioned earlier. Other significant events also refer to biblical passages and acquire new meanings with the incorporation of elements from other philosophical traditions. In this regard, the ‘red pill’, for instance, represents the forbidden fruit that bestows awareness to Neo about the illusory world in which he dwells, but that ousts him from the capitalistic paradise that the Matrix represents; Neo’s plunge into sewer waters allegorizes his baptism; “Neo is Christ, Morpheus is John the Baptist, Cypher is Judas Iscariot and Trinity [...] is the Holy Spirit. [...] She is the element that unites Neo (the son) and Morpheus (the

⁴⁷ For further details on the parallels between the Gospels and *The Matrix* visit the site *Matrix as Messiah Movie* at <http://awesomehouse.com/parallels.html> (accessed in July 2010).

father) in a tight trio right from the beginning” (Nutu 2006: 73); Smith represents a devilish narcissistic figure (Satan), while Cypher is Judas, the traitor.

Moreover, *The Matrix* represents a peculiar trend of cyberpunk that fuses almost all the motifs and issues of the genre, including those of religion. Nevertheless, it is common to read in articles about cyberpunk’s lack of interest in social issues such as reproduction or religion (especially on Christianity). However abundant examples make manifest the interest of cyberpunk, and mostly postcyberpunk, in these topics, as *Snow Crash*, *Mindwarp* (film) or the *Sprawl Trilogy* reveal. What is true is the fact that cyberpunk tends to depict religion as an anomaly or a form of corruption, and usually as a mechanism of oppression: “Devoted fans and critics of cyberpunk,” writes Christopher Partridge, “cannot help being struck by the apparent demise of religion in general, and of Christianity in particular. [...] While in some stories [...] the future is ‘religion-free’, in many others there is, as well as a depiction of alternative religious futures an explicit critique of Christianity. [...] The dystopian future of cyberpunk will always have, along with all other forms of corruption, religion” (2006: 139-40).

Permutation City, in turn, approaches the issue of religion from an unbiased perspective insofar as it refuses to take sides and favor one set of beliefs over another by exploring a variety of sources and by integrating them into one single discourse. On the other hand, some characters in *Permutation City* regards religion as the antithesis of science and describes the emergence of religious thought (and of deities) as the result of a socio-cultural consensus (a communal agreement) and of neurobiological processes. Religion is then portrayed as an explanation about the nature of the universe by means of symbolic language and allegories: “So what any sane person would simply call *the laws of physics*, you've decided to rename G-O-D.

[...] You've stripped away all the obvious stupidities – all the anthropomorphism, the miracles, the answered prayers [...] there's absolutely nothing left that needs to be called *religion*. Physics is *not* theology” (67, italics in original).

Nonetheless, like *The Matrix* franchise, Egan's novel conceals references to diverse religious systems including Christianity, Greek mythology, Scandinavian folklore, Platonism and Gnosticism. Durham himself, for instance, plays a variety of mythical roles since he is in charge of the greatest project of the novel, an attempt to create an entire world that will live on its own, perpetuating itself without the need of material bonds. Moreover, he commissions Maria to develop a sub-stratum of this ethereal environment. Durham's name, Paul, makes reference to the 'Apostle to the Gentiles' who conveys the Gospel's message across the Mediterranean Basin, perhaps also Durham's labor, as he does not create the TVC universe himself, but is in charge of proselytizing the skeptic into his project. As Paul of Tarsus whose inimical attitude before his conversion was transformed into a zeal for Christianity ("For you have heard of my previous way of life in Judaism, how intensely I persecuted the church of God and tried to destroy it" (Paul 1996: 480, 1:13)), Durham himself undergoes a process of 'conversion', as he is a former schizoid and insurance salesman, later transmuted into a quasi-scientist and theoretician who will propagandize people into his own version of 'heaven'. Durham's metanoia⁴⁸ happens after a psychiatric process in which nano-medication changes his perception from that of a deranged individual into that of a prominent man of science whose experiments with perception, continuity and identity allow him to prove the Dust Theory and build a self-sustained world for disembodied souls.

⁴⁸ Metanoia: "change in one's way of life resulting from penitence or spiritual conversion" (OED). "A profound, usually spiritual, transformation; conversion" (Random House Dictionary).

Durham then seems to achieve a period of sublimity once his experiments with his own Copies provide him with the possibility of reaching an exalted state as long as he detaches from his body and lives a lofty life. After his illumination (either in a Gnostic manner or mirroring Paul's enlightenment), he commissions the TVC universe, has sexual intercourse with Maria, and commits suicide. What Tama Leaver recognizes as Durham's blind desire to use technology to parody reproduction, a common figure in sf narratives, could actually be considered a Christian-Gnostic process of illumination and redemption, a way to recede from the materiality of the body (considered by Manicheans and Gnostics as an imprisonment for the soul) and which elevates him to the level of a deity, while his body dies with the decaying matter that enslaves pure thought. What in classic cyberpunk and SF could be regarded as a barren attempt to reproduce without the need of a woman, in *Permutation City* such intent to give birth is associated with disembodied techno-illumination. Tama Leaver, nevertheless, perceives Durham's seppuku as a sordid effort to substitute women in the classic manner:

This bizarrely grotesque parody of birth illuminates a strong critique of the parthenogenic impulse. Durham's ambition to play the role of creator is parodied and cast as completely irrational to the extent that the biological Durham can see no reason to continue existing once his digital Copy is living the life to which he aspires (2004: 431).

Durham's self-disembowelment and his attempt to produce an entire world out of pure technology, as analyzed by diverse critics in a traditional manner, is regarded as a combination of male fetishism and the desire to create artificial life, a classic fantasy in techno-narratives that feminists call 'parthenogenic' reproduction (what Samantha Holland calls 'womb envy', as noted). The virtual construct (Elysium) and hence the Copies are considered Durham's offspring, while his decaying elderly body, considered a Gnostic prison, is put to death. Durham's physique attempts to give birth

in the material realm, yet it dies. It does succeed, though, in sloughing off his 'dead' container and in making a new cyber-covenant that will allow people to have eternal life as before man's fall, what Gilgamesh so intently desired and attained by means of perseverance. Since the text is overtly scientific and anti-religious, this covenant is made not between an abstruse God and a preacher of love, but between a relentless, perseverant man of science and the laws of the Dust Theory that explain the configuration of the universe as we know it. In this manner, Durham regains the paradise lost by means of scientific 'illumination', which stands as the comprehension that divinity forms part of everyone (and everything) since objects and living beings are but motes of a possible arrangement of the universe, "one possible solution to a giant cosmic anagram" (103).

In this regard, Durham becomes a messianic figure that could also be associated with the turnkey of a supra-world, a type of Saint Peter, Charon or Cerberus, the spreader of the word and the news that life is eternal again since humankind, by means of a messianic genius, has come to understand the real functioning of the universe, what Neo discloses about the Matrix with his own death insofar as he understands that everything in life is a series of elements disposed in a certain manner. Once the 'code' of nature is broken and mankind not only comprehends its functioning but learns to manipulate it, the sense of limitation is obliterated and new orders can spring from dust. In *The Matrix*, the messianic character (Neo) is a computer hacker that realizes that 'to hack' is to break the code and understand the rules of a system that he can be bent or broken. These rules include the universe itself, and constitute the reason why Neo learns to manipulate machines in the 'real' world and destroy them; what he learns within the simulation (the Matrix) he applies in the material world. A classic misunderstanding among the film's dilettantes is that Zion

and the material realm stand as a simulation within a simulation or another sublevel in the eternal simulated world; but what his actions (destroying machines with his thought) really mean is the fact that Neo learns, by means of a simulation, how things are constituted in the real world and thus discovers how to bend its rules as well, an allegory that elevates ‘hacking’ to the level of scientific labor.

On the other hand, Paul Durham, more than a messianic hacker, stands as an apostate who belonged to a demented material world (the symbolism of his schizophrenia) and subsequently opts for deconstructing its constituting pieces in order to understand its inner nature and to arrive to scientific conclusions, aided by virtual realities as well. Such deductions will turn Durham into a type of deity within his artificial paradise, since, like Neo, he is the one who understands its rules and operativeness, and, as the founder of the realm, he appears entitled to the position of ruler or supreme ‘minister’, as attested by the ghostly stowaway Peer, an inhabitant of Permutation City: “I have to admit that the TVC rules have slipped my mind completely; it might take me all of five seconds to look them up again. *Searching for God?* That's a difficult one: Paul Durham never returns my calls” (192, italics in original). Different from Neo, whose main attribute is to ‘bend and break’ the rules of the universe, Durham can actually recreate and manipulate them, he can create worlds (or commission their founding) and influence their destinies.

In contrast with Durham, an apostate body-despiser, a Gnostic illuminated and a Platonic enthusiast who declines the materiality of the world in favor of the purely ideal, Maria stands as the incarnation of matter, a eulogizer of the body (and of materiality) and the mother of Planet Lambert; her name is associated with virginity and motherhood, all accentuated by her last name, Deluca, as if making reference to Mary the mother of Jesus in Luke’s Gospel, who is visited by an ‘angel’ against

whom she reacts in a dubious manner: “The angel went to her and said, ‘Greetings, you who are highly favoured! The Lord is with you.’/ Mary was greatly troubled at his words and wondered what kind of greeting this might be” (Luke 2006: 142). When visited by the ‘epiphanic’ entrepreneur Durham, Maria acquires the same demeanor as her namesake in the Bible, hesitant and incredulous and first, fully engaged in the project by the end: “[Durham:] ‘I want you to design a pre-biotic environment’ [...] Maria was now thoroughly confused” (80). In this regard, Maria’s role within the narration is that of the embodiment of ‘matter’, a cybernetic exegesis (in this case) that regards the feminine as the source of life and culture, as attested in the history of science fiction (and other narratives), and confirmed by Sharon Stockton:

The plain over which the cowboy rides (into which he makes inroads, which he conquers, subdues, and makes his own) is conceived as “virgin” territory; this femininity is crucial to the ideology of imperial capitalism. The feminine has been traditionally conceived in the West as the passive field which foregrounds masculine activity and identity formation. What woman mythically brings to creation [...] is “matter–mater”, raw material, open space. What man brings to creation—to the moment of his own identity formation—is form, the power to give order, meaning, and value to matter (1995: 591).

For that reason, Maria provides meaning to the creation of a virgin territory, a virtual reality in which an immaculate generated world will burgeon, yet which represents a passive virgin field where male intensive activity will flourish. In this manner, Maria becomes the matter-mother, the catalyst that provides a fertile ground where bodiless eternal life can occur. She represents youth, desire and vindication of the body, while her image is associated with earthly existence and bodily materiality, constantly confronted by the putrefying, decaying body, surrounded by decomposing beings near to death such as the cases of her cancer-diseased mother, Durham’s disemboweled

body or the stench of a burst sewer at the beginning and end of the book (a clear reference to decadent matter):

While the male protagonist, Durham, embraces the AI association of identity with mind, Maria resists the virtual life in an association of body and identity that appears to draw on the tradition of relating women to bodies and men to minds [...] Maria's identification with her womb-like house is accompanied by her positioning as figurative "mother"-cum-creator of an entire new species, the Lambertians, and their "planet." [...] Egan establishes a metonymic association between the pungent necessity of excrement and corporeal reality that accompanies Maria from first appearance to last. The novel's bracketing references to the stench arising from a burst sewer are a reminder of the functions that deem the body to be "alive" and hence mortal (Farnell: 74).

Maria's image is thus related with the upkeep of her material body, like Francesca, her mother, who is obsessed with her corporeal moribund life; yet, more than that, she is associated with money, the material element needed to save Francesca from a complete death, and, although she is reluctant to have her own mind scanned, she seems desperate and endorses disembodiment and scanning as the only way to save her mother's mind: "Six hundred thousand dollars would be enough to save Francesca's life" (146). The confrontation with her mother's dying existence compels Maria to accept the absence of a god to whom they can both entreat for a life-extension, by which she turns into the agnostic mother of a god-less universe, perhaps the reason why atheist Planet Lambert never develops creationist theories, divinities or cults. Durham and Maria's consummation of the creation of the new universe presents us with a double facet of her, on the one hand, as a Mary Magdalene who stands as a carnal presence, performing sexual intercourse with the messianic figure and uncovering his bodily fragility, and, on the other, as Mary the mother who witness the inauguration of the new heavenly world at the time she remains behind with the body of the death messiah, a Michelangeloan pietà that underscores the obsolescence of the flesh and the efficacy of the new virtual realm of bodiless ideas. Maria's subsequent resurrection in this world can be associated with the success of

disembodiment, insofar as she performs the role of the Holy Spirit who intercedes for the Lambertians and who serves as a link between their universe and the human-cum-divine sphere.

In this respect, a series of signals underline Maria's task as a life-giver, which represents an omen that derives from the immaterial world of dreams, and which stand as an osmotic relationship between the virtuality of the world where disembodied minds live and the incorporeal oneiric scenarios, created in the unconscious mind of the characters: "Maria woke from a dream of giving birth. [...] The 'child' had turned out to be nothing but a blood-stained statue carved from smooth, dark wood" (172). This image can either be associated with the automatization of corporeal life on earth or with a subconscious fear that the life she is creating might grow into stiff fleshy entities such as the ones that Durham so much abhorred.

Finally, the world that started with Durham's acquisition of consciousness in a virtual environment, a genesis of sorts ("Paul Durham opened his eyes [...] For one sleep-addled moment, still trying to wake, to order his life [...] Then he woke a little more and the confusion passed" (4)), is associated with the dystopian atmospheres suffused with corporate and governmental power, decaying bodies, death, money and desires, a setting that resembles the fierce tales of the Old Testament and which, by means of Durham's scientific redemption, will be swapped for an ideal Gnostic environment in which no decadence or corruption can take place. In this regard, Permutation City constitutes an allegory of a socialist, utopian heaven to which absolved souls can recur in a potential cybernetic moksha (the release from the cycle of rebirth in Hinduism) that will put an end to such an excruciating samsara.

II.2.3 Utopias, immortality and absurdism: the influence of Christianity and other philosophies in *Permutation City*

This section attempts to show how Egan and other authors attempt to describe new social phenomena and their interrelation with computer technologies through ancient psychic units such as mythologies, religions and superstitions. In this manner, the texts analyzed in this section reuse a wide variety of archetypes and narratives (related mainly to Christian thought) in order to integrate those accounts into our postmodern examination of the social world that surrounds us and which, nowadays, is deeply influenced by cybernetic technologies and computer networks.

In this regard, diverse works such as the films *The Matrix* and *NEKromantic*, or Heinlein's 1961 novel *Stranger in a Strange Land* (all of them imitating in some way or another the manner in which John Milton's recreates the Bible's narratives) have devised a way to retell the Gospels according to their particular perspectives and times. Whereas Jörg Buttgereit's *NEKromantic*, for instance, a shocking film about necrophilia, utilizes a sordid setting to describe a Christian parable of redemption, his symbols and allegories contrast scandalously with those of Milton, which, permeated by the political atmosphere of his times, make use of traditional British lampoons, satires and figures of speech instead. Nevertheless, the brutality of Buttgereit's scenes provides us with new panoramas and paradigms which update our views on traditional trends of thought. In this manner, conventional Christian thought about forgiveness and repentance, for instance, is put to test in this film in that it questions whether a necrophiliac or a criminal like Hitler can reach heaven and attain eternal life by only repenting. The 'openness' of the biblical texts allows Buttgereit and others to manipulate their contents so as to build a hyperbolic contrast, an estrangement that

upgrades the meaning of those parables, and which produce a critical cross-examination of ancient narratives applied to new social occurrences.

In *The Matrix*, for instance, the ruthlessness of corporate thought is juxtaposed with a more humane vision that involves love and tolerance. The original sin (i.e. intolerance and hubris) bequeathed by the ancestors of Zion gets neutralized as Neo beseeches the machines for a new covenant. In this way, corporate ideologies, along with the postmodern inclusion of other philosophies, play a decisive role in the new form of presenting and interpreting Christian philosophy.

In the same manner, as *Permutation City* unfolds, in spite of its scientific anti-religiousness, some Christian figures sprout up and mingle with the postmodern backdrop that constitutes Egan's thought. In the novel, the scientific spirit of Durham, Maria and Peer (and not love as in *The Matrix*) constitutes the new requisite needed to petition that the gates of 'heaven' open once again, a situation that will, consequently, allow these scientists achieve immortality by means of effort and perseverance. For this purpose, Egan follows a narrative structure that resembles that of Dante's *Commedia*, and makes use of cybernetic parables to browse through the three stages of punishment, purification and bliss that constitute Christian philosophy.

The corporate quasi-dystopian setting at the beginning of the novel, a stage totally associated with scarcity, mortal embodiment, digital capital, surveillance and materiality, represents, for Durham, an imperfect world that hinders spiritual and intellectual progress. whereas the Gnostics regard as the flawed realm created by a lesser deity and the Neoplatonics consider the best world the Demiurge could have created within the limitations of matter, for Durham the world of materiality stands as a despicable, excruciating sphere whose restricted options are worth discarding, perhaps the reason why his fleshy self commits suicide at the end of part one.

Considered by thanatophobes as a nightmare, this initial setting could easily be linked to a representation of Dante's hell, the dystopian cyberpunkish outset from which the novel departs and which serves as a contrast to the incorporeal world that emerges as a result.

The fact that a variety of characters lead an unbearable life in the first part of the novel, a type of prison for some of them, accentuates the description of dystopian settings and states of mind that Sartre identifies as hell (*"l'enfer, c'est les autres"*, (Sartre 1947: 182)); the opening backdrop thus represents a noxious milieu in which the shortcomings of materiality constitute a series of threats and challenges. In this manner, diverse motifs epitomize the severe plight that the characters face for as long as they retain their bodily essence: Riemann's perennial self-punishment for the murder of drug-addict Anna; Francesca's long term illness; Anna's entanglement in the lowlife; Durham's insanity; the planet's climatic chaos; Maria and Aden's (her boyfriend) constant concern for money. These examples embody a hellish scenario in which despair and tension will be dispelled only with the advent of the utopian shelter (the TVC universe) launched by their messiah (Paul).

On the other hand, Reimann (the wealthy murderous thanatophobe visited by Durham to offer him a place within his haven) undergoes a mystifying experience when he suddenly awakens in a dream-like deserted hospital (comparable to Neo's sudden materialization in the limbo, an anagram of the so called 'Mobil' station), and finds out that he is trapped within a purifying experience, a perpetual, repetitive and cleansing sojourn in a type of purgatory (a clinic) for his incorporeal mind. Riemann's repetitive experiences, first as an ordinary Copy, then in the 'Valhalla room' (the hospital), and finally in Permutation City, all aim at proving how determining, adherent and endurable 'capital sins' are once ingrained in the social mind of the

subject. Riemann's sin, a resemblance of Cain's, clings on to him along his incarnate and his disembodied life. As Riemann moves through these three stages in a desperate attempt to redeem himself from his iniquity, he personifies the traditional Christian phases of purification, insofar as his bodily life is associated with hell, his awakening at the hospital room is related to the purgatory ("To Purge his Copy of guilt!" (179)), and his conveyance to Permutation City is finally linked with heaven.

Although his awakening at the purgatory room 'Valhalla' intends to serve as a redeeming move, the Christian models of the novel are associated with an entire set of superstitions, a collection of unfounded doctrines whose contents are deeply ingrained in the psyche of individuals and which create a series of complexes among entire populations. For these fixations, no apparent solution is efficient; Reimann's guilt complexes (correlated with the notions of 'sin') adhere to his bodily self as well as to his incorporeal personality. The constant repetition of ideological patterns (doctrines) constitutes a collective belief derived from 'big lies'⁴⁹, persistent preposterous 'yarns', religious tall-tales accreted throughout time. The fact that the methods to redeem sin suggested by religions (especially Christianity) all prove to be unsuccessful according to the novel indicates that the psychological complexes derived from trauma and social experience become inherent to the subject and impossible to eradicate but by death, even in the afterlife. The transfer of Reimann's sins into the afterlife (the disembodied life in Elysium) corroborates the fact that sin does not perish but with the total death of the psyche, a proof that iniquity is inherent to human nature. Riemann's

⁴⁹ Hitler's Big Lie consists in a blatant repetition of a lie that, at the end, it is generally believed as true: "All this was inspired by the principle—which is quite true within itself—that in the big lie there is always a certain force of credibility; because the broad masses of a nation are always more easily corrupted in the deeper strata of their emotional nature than consciously or voluntarily; and thus in the primitive simplicity of their minds they more readily fall victims to the big lie than the small lie, since they themselves often tell small lies in little matters but would be ashamed to resort to large-scale falsehoods" (Hitler 1939: 185).

personality as an ex-banker and murderer is thus associated with the most detrimental sins of these times, homicide and financial crimes, both of which constitute a significant part of his tormenting past:

What could he have told the Copy, anyway? The miserable truth? *I'm dying in fear. I killed Anna for no reason but selfishness and cowardice – and now, in spite of everything, I'm still afraid that there might be an afterlife. A God. Judgement. I've regressed far enough to start wondering if every childish superstition I ever held might yet turn out to be true – but not far enough to embrace the possibility of repentance. /Or some anodyne lie? I'm dying in peace, I've found forgiveness, I've laid all my ghosts to rest. And you're free, now, to live your own life. The sins of the father will not be visited upon the son./*Would that have worked, would that have helped? Some formula as inane as the voodoo of Confession, as glib as the dying words of some tortured soul finding Hollywood redemption? (180, italics in original).

Nevertheless, the scientific attitude of the novel is overtly at odds with redemption or other religious vindications; in this regard, computer technology (a scientific means) replaces religious repentance. The method proposed by the novel to eradicate ingrained complexes is through heuristics: a *Groundhog Day's* effect ensnares Riemann into a recurrent virtual reenactment of Anna's murder, a repetitive occurrence whose result is at all times the same. The affliction that perennially torments Riemann resembles a Kafkaesque mental scenario that only ends with his utter demise. The recurrence of this futile framework questions the efficiency of superstitions and religions, two elements that Egan portrays as equally ineffective. In this manner, the description of endless dystopian settings linked with human corruption is identified with the genesis of religious thought and the urge for a set of preternatural regulatory doctrines capable of providing hope and optimism, as constantly illustrated in the book: "In the distant past, he'd [Riemann] undergone a hundred feverish conversions; he'd ranted to every deity which humanity had ever postulated. If he'd stumbled on the one which existed – the one responsible for his damnation – his pleas had been to no avail" (203).

In this manner, the book makes reference to a series of catastrophes provoked by modern civilization and a succession of actions intended to amend such calamities, as if a particular order (linked with religion in the first instance, then with science) were broken and for which only the demise of the perpetrators constitutes a real solution. In this way, the creation of Elysium (the new name for the TVC universe and namesake of the Greek afterworld), an immaterial domain, attempts to dispense with the adverse connotations of flesh and materiality, both associated with corruption. The disposal of physicality (disembodiment) and Riemann's demise represent the only solution to the persistent presence of sin and degeneration.

The state of decadence associated with materiality and atavisms precipitate a rupture in the balance of nature. As exemplified in diverse classics in the history of literature, this fracture is described in terms of an interference with the 'ladder of nature' or the 'great chain of being', a perpetration that necessarily brings about a relentless instability when the natural order is disturbed by the ambition of man. After the rupture, a series of cataclysms occur up until the 'divine' order of nature is reestablished, as shown in diverse classics such as *Macbeth* or *Hamlet* in which 'unnatural' murders generate a series of uncontrollable events that prevail until balance is regained with the death of the assassin. The 'great chain of being', as Pope describes it, the representation of the fundamental hierarchical structure that emanates from a supreme divinity and ends with the tiniest entities, then stands as the ultimate natural gradation that, if broken, constitutes the primary source of catastrophe:

Vast chain of being! which from God began;
Natures ethereal, human, angel, man,
Beast, bird, fish, insect, who no eye can see,
No glass can reach; from infinite to thee;
From thee to nothing. –On superior powers
Were we to press, inferior might on ours;
Or in the full creation leave a void,
Where, one step broken, the great scale's destroyed:
From Nature's chain whatever link you like,

Tenth, or ten thousandth, breaks the chain alike (Pope 1891: 19, my italics).

The ‘ladder of nature’ has been unquestionably broken in Egan’s novel; proof of that is the cyberpunkish backdrop at the beginning of the novel presented in the form of a global punishment associated with the erratic climate which will eventually demand the use of the entire computer power in the world (a symbol of a new order based on technology) to reestablish the unsettled natural order. In this sense, Riemann’s individual actions play a minor role in the disruption of balance; his actions mirror the egotistical nature of humankind and his beliefs and superstitions represent an attempt to amend the broken balance that has been upset ever since the fall of man.

Riemann then enters a cybernetic Groundhog-Day heuristic loop that allows him to revamp his past and purge his sin as the only possible solution for the lack of humaneness and love and which represents a partial reestablishment of the fractured balance of nature: “He might have called an ambulance. He might have saved her life. It would have taken so little strength, so little courage, so little love, that he could not imagine how a human being could have failed to possess enough of each, and still walk the Earth” (204). The complementary part of the antidote, as we know, is his complete annihilation, an act that, like that of Durham’s suicide, attempts to clear human history of sins and have a fresh start.

Nevertheless, the skepticism toward metaphysical repentance seems worthless in such a scientific setting as *Permutation City*. In contrast with the futility of religions and superstitions, the only method of redemption to which a sinner can appeal to is a cybernetic simulation in which the ‘sin’ can be analyzed and reconsidered, a cognitive experience based on a constant repetition that will enable people to rehearse an imperfect habit until it is accomplished flawlessly. This is the cybernetic simulation by which Riemann finally achieves to save Anna: “Shaking, he

phoned for an ambulance. His voice surprised him; he sounded calm, in control. Then he knelt beside Anna and slid one hand behind her head. [...] *His father would disinherit him.* He stared blankly into the future, and stroked Anna's cheek" (228, italics in original). The Christian-like response based on love and compassion seems more appropriate for a discourse like that of *The Matrix*, yet, the scientific setting of *Permutation City* makes this solution naïve and senseless.

In this regard, the threefold structure Egan's novel, a reminiscence of Dante's *Commedia*, might suggest the possibility of a final redemption (as in *The Matrix*), yet the hierarchy existing in the 'earthly' sinful framework in the first part of the narration is replicated within the 'heavenly' universe of the second part, thus conveying human sins, conceitedness and arrogance to this 'immaculate' environment. The power that the Copies of Elysium exert over Planet Lambert, for instance, promotes them to the level of autocratic gods, and the corruption brought from the worldly plane (associated in my analysis with the hellish settings of the Old Testament) constitutes a degradation of the hierarchies of power that generate an ultimate phase of deterioration and devastation:

Though some of [Egan's characters] think of themselves as the same selves we met at the beginning, they are now freed from bodily limitations, they possess *godlike powers*, and their primary temptation is a spiral into self-absorption followed by self-annihilation. Egan suggests that aspiring to program-hood can be a form of death wish. The dust that comes together to create an Edenic new world or a virtual Adam can also be the dust of *dissolution and decay* (Attebery 2004: 163, my emphasis).

Egan's description of a new divine order commanded by impudent humans is associated with the rupture of the natural order, an allegedly immaculate 'ladder of nature' within the new virtual world. Hubris or the position that humans adopt as the sovereign deities constitutes a defiance to the natural order accentuated by the corruption inherent to their nature, a condition that entails cataclysmic results in an

atmosphere ostensibly free from ruin and degeneration. Similar situations are also constantly depicted in sf narratives such as *The 6th Day*, *2001* or *The Matrix*, in which men usurp the roles of deities and upset the order of nature by creating artificial life or by cloning people, thus provoking a series of unpreventable catastrophes. As in these works, death demands compensation for the extended aggression perpetrated against nature and Elysium's alleged eternal structure is threatened by the presence of uncontrolled entities created by men, all of who embody a classic narrative associated with the rebellion of the offspring against their procreators.

The second sign of Elysium's defiance of the 'natural chain of being' lies on its narcissistic hunger for perpetual life, a condition naturally inherent to deities and which humans attempt to assume, provoking in this way a series of calamities derived from their corruption and lack of divine perfection. Egan thus explores the potentials of eternal life as a cognitive experience in the first place, but, especially, as the product of human anxieties originated by the transitoriness of consciousness, youth and beauty. Moreover, the mundane apprehensions of the Elysians and their deranged eagerness for immortality constantly result in insanity or absurdity. "Occasionally in science fiction," S. L. Rosen states "alienation, ennui, and enmity are not considered sufficient payment for immortality, and instability and madness are added to the cost. Even more terrible threats, such as the futility of all human activity [...] are sometimes promised" (1996: 130).

In this regard, Egan examines the drawbacks and advantages of eternal life through disembodied stowaway Peer whose name and personality embody an intellectual 'peeping-tom' (to peer), an ambitious Nosey-Parker who, on the one hand, is an avid polymath yearning for knowledge and comprehension of the universe, and, on the other, epitomizes the futility of life, eternal or not, and the absurdity and

limitations of human consciousness, incapable of utterly grasping the essence of the cosmos. By means of a constant ideological confrontation with his wife (they both fight constantly over either petty or profound issues), Peer's view of the world involves multiple essential contradictions insofar as, on the one hand, he constantly hunts for novel forms of knowledge (epitomized by his mathematical expertise), and, on the other, he squanders his eternal existence in futile tasks such as the manufacturing of endless amounts of useless objects:

The workshop abutted a warehouse full of table legs – one hundred and sixty-two thousand, three hundred and twenty-nine, so far. Peer could imagine nothing more satisfying than reaching the two hundred thousand mark [...]. Immediately before taking up woodwork, he'd passionately devoured all the higher mathematics texts in the central library, run all the tutorial software, and then personally contributed several important new results to group theory – untroubled by the fact that none of the Elysian mathematicians would ever be aware of his work (191).

This unbalanced demeanor represents an unexpected, perhaps unpleasant and depressing byproduct of eternal life, which turns death into meaningful option once again, the reason why the TVC universe collapses, reminding all its inhabitants of the senselessness of existence if no point of reference is provided. Death then acquires the role of a 'landmark' of the passing of time, an aide-memoire of the smallness of human perception in relation to the vastness of the universe, and of the shortness of organic life. "Without mortality, there is no time. All moments become equal. When time becomes eternal, its passing is rendered meaningless" (Dinello 2005: 173).

In this regard, a lack of enthusiasm for life is derived from the fact that in Elysium there are "no hidden wonders, no lost tribes" (209), a situation that incites suicide as a resort to the recurrent despairing solipsism of the characters, an experience equated with "being buried alive" (32), which is associated with the lack of meaning of existence, either virtual or organic. Thus, to "'bale out' –the euphemism for Copies committing suicide" (Hayles 2005: 223) resembles an

approach to Camus' thought, which regards suicide as the solution to isolation, solipsism and absurdism, and the only "truly serious philosophical problem" (Camus 1955: 3).

Peer is, in this way, associated with the pointlessness and solitude of life, inasmuch as the fruit of his brilliant mathematical work is rendered totally useless and unprofitable for anyone, turning decay and destruction as the only possible result. Egan's discourse corresponds to that of existentialist philosophers in that eternal life represents for him a ground in which time, along with the radical situations that develop through it, constitutes a hyperbole that unmasks the futility of life, after which "everything is over and man returns to his essential history. His future, his unique and dreadful future—he sees and rushes toward it. In its way, suicide settles the absurd. It engulfs the absurd in the same death. [... Hence] suicide is a solution to the absurd" (Camus 1955: 40 and 5 respectively).

The lack of death, or rather eternal life in Elysium, provokes a thorough change of vision and perspectives among its inhabitants, and thus, a new meaning is given to the entire culture that precedes them, including the works of art that formerly comprised a full set of significant and meaningful allegories, now utterly senseless and void of cultural validity: "*Dubliners* was as fantastic, now, as *The Iliad*. *Guernica* had never really happened – or if it had, the Elysian view was beyond the powers of any artist to portray. *The Seventh Seal* was a mad, pointless fairy tale. *The Discreet Charm of the Bourgeoisie* was all that remained" (207). The axiological shift derived from immortality and disembodiment blurs the boundaries between actual life and illusion, hallucination and dreams. As a critique on Christian eschatology, Egan's settings identify Dantean eternal life in paradise with absurdity, repetitiveness and futility, in the same manner as Elysium's rehearsal on disembodiment and

“immortality through duplication and download is a meaningless religious fantasy and a mere propaganda tool” (Dinello 2005: 174). In this manner, death becomes an indispensable element for the natural development of events and culture, and for the formation of a critical consciousness.

Durham’s utopian universe, a postcyberpunk setting, equates the need to dispense with money with the necessity to depose death, and the failure of his perpetual bio-political systems mirrors the deficiency to improve the standards of life of systems such as socialism, fascism and neoliberalism. On the other hand, Egan’s philosophy, a resemblance of Leibnizian optimism, recurs to the idea that this is best universe that could be created, and that the ‘negative’ counterparts that constitute human life are necessary to run composite universes like Elysium. The actual solution to the complexity of such anti-natural colossal projects like the TVC universe is to return to cyclic systems that involve binary opposites such as life-death, wealth-poverty, etc. For this purpose, Egan opts for rebooting his entire virtual cosmos into a space where death is meaningful and necessary, and which requires constant series of Apocatastasis, a restitution to the original conditions that ensues Apocalypsis, a cyclic mythical idea promoted by ancient peoples such as the Mexicas, the Mayas⁵⁰, the Indians and Egyptians, which also forms part of the repetitive essence of *Permutation City*.

Finally, religious thought is, on the one hand, strongly criticized, and, on the other, given new significations and perspectives in order to provide new tools to understand the position of man within time and history. Egan shows us how the deeply ingrained psychological constituents of our cultures cling to our inherited

⁵⁰ The Mexicas, a group of diverse ethnicities, believed that the world ended every 52 years and a new era started from scratch, a ‘calendar round’ or century after which renewal occurs. See Boone 2007.

trends of thought and influence the way societies develop in general. For him, the legacy of our ancestors plays an important role in the design of social structures and in our worldviews, philosophies and behaviors. These inherited ideologies (described as religions, mythologies, legends and popular lore) constitute an important shaper of our global conduct but, conversely, they also amount to a series of hindrances that determine the evolution of our thought. In this manner, Egan examines the validity and influence of a wide diversity of religious, mythological and philosophical views in the progress of modern societies and reconsiders their meanings by describing a defamiliarized setting in which these beliefs are put to a test and cross-examined.

II.3 The virtual embodiment of knowledge: the cognitive power of computer-generated worlds

II.3.1 Immersive simulations, hyperrealism and cognitive techniques: time and reincarnation in *Permutation City*, *The Matrix* and other works

The computer-generated settings of cyberpunk and postcyberpunk constitute a series of cognitive fields that enhance individual perception and that allow for the exploration of diverse aspects of the human psyche. These virtual environments constitute a ground on which identity, human nature and the performance of individuals in different roles are examined and tested. These fields also confront humans with the presence of the non-human ‘other’ (virtual characters) or with entire new backdrops in which cognition is generated (virtual universes). “In cyberspace,” Kevin Robins suggests, “there are possibilities for exploring the complexities of self-identity, including the relation between mental space and the bodily other. We are provided with a virtual laboratory for analyzing the postmodern –and perhaps the post-human– condition” (1995: 140).

The environments described in VR narratives allow us to recognize the independent role but, paradoxically, the inextricable relationship between the ‘shell’, the body or hardware, and the soul-mind-psyche typically associated with computer software. As with other sources, the virtual settings of postcyberpunk explore the paradigms that constitute identity and personality from diverse perspectives. In *The Matrix* for instance, innumerable questions about the role of digital individuals are left unsolved, such as reincarnation, identity, free-will or the distribution of ‘souls’ into different ‘bodies’ once the Matrix is rebooted. In this regard, the extensive repetitive

critique that approaches the franchise totally neglects such transcendental topics in favor of the tedious reiteration of the presence of Platonic or Cartesian philosophies in the films. Yet, my point here is to emphasize the role of individuals in the complex functioning of the Matrix, a universe that emulates our world in the tiniest details.

In the first place, a puzzling problem arises when the critics approach the narrative's timeline, as no one noticed that much of the information that we are given is part of the set of lies supplied by the first film. The key to solve the timeline conundrum lies in Morpheus' words, as, in the first film, unsure of what the current year is, he suggests that they are close to the year 2199. Yet, in the second film, as he delivers a speech to the denizens of Zion, he reminds them that the war against the machines has been waged for over a century now, but by the end of the film, as Neo encounters the Architect, we learn that the process of destruction and rebirth of Zion has occurred six times and that these cycles are identical, thus implying that there has been at least 6 one-hundred-year-long wars with the machines. Without counting the first two failed attempts to create a Matrix, a process that could have taken decades or centuries to be developed and destroyed, the actions occur at least in the year 2600 AD. This apparently trivial point redirects us to our main concern: What happens to the dormant people connected to the Matrix once each of the destructive cycle ends?

The answer to this question suggests two possibilities, on the one hand, the 'Groundhog Day syndrome', and, on the other, the re-allocation of roles according to history. The former implies that the inhabitants of the Matrix are brainwashed and live the same fictitious year (1999) time and again without noticing the repetition, while the latter indicates that every inert body connected to the system is assigned a historical role within the virtual reality, to which after the end of the one-hundred-year-long cycle the roles are reassigned. In this manner, following the second

premise, plenty of those individuals are given the role of historical figures, while others play the part of ordinary people. This complex functioning is corroborated by the Architect's words as he explains to Neo that the first Matrices he designed were 'perfect' but unconvincing to the people, as they were not given free-will but only an uncritical happiness. Thus, the ensuing systems were tailored by human history, for which, as shown in the screen panels behind, some of the humans plugged to the Matrix play, for instance, the role of Hitler or Bush, insofar as "all of human history would occur within the Matrix" (Vasiliou 2005: 109). This procedure, according to what we know from Morpheus and the Architect, is rebooted every one hundred years, which indicates that history within the Matrix starts in the year 1899 and ends in 1999, repeating itself over and over, and finishes just before humans have the opportunity to disclose the impending upsurge of AIs, the cause of the war.

The simulation shown in *The Matrix* then emulates diverse approaches to reincarnation in a postmodern manner. Like *Permutation City*, the Wachowski's film makes use of cybernetic allegories to attempt to disclose the functioning behind rebirth, for, as David Chalmers claims, "we can imagine that a matrix simulates the entire physics of a world, keeping track of every last particle throughout space and time. [...] An envatted⁵¹ being will be associated with a particular simulated body." (2005: 133) Yet, more than classic palingenesis (rebirth), the films present a complex mixture of Hindu beliefs about reincarnation and metempsychosis, since the people connected to the Matrix cannot die, otherwise the dependent machines would perish as well. In this manner, the existence of a rebirth system like this one in order to assign 'souls' to the 'envatted' human crops and keep them alive is indispensable.

⁵¹ By 'envatted', or the brain in the vat, these critics make reference to the hypothetical experiment in which a disembodied brain is kept suspended in a vat and fed with electric currents that simulate a real world, and provide the illusion of real sensations.

This type of cybernetic metempsychosis generates a series of questions concerning longevity, the recycling of psychological raw materials and eternal life, inasmuch as computer technology (a fake god that emulates nature) allows us to reconsider the functioning of the universe by means of diverse simulations, uncorking vast new panoramas about the operation of metaphysical phenomena such as reincarnation. In this way, sf narratives provide the ground for critics such as Fischer and Curl (1996) to catalogue the different systems of eternal life and reincarnation. As mentioned, they make a distinction between the serial and nonserial models of eternal life; while the former implies a series of different lives that an individual can experience, the latter refers to an single very long life. The serial model, more identifiable with *The Matrix*, is then divided into two facets:

The disjoint-lives serial model and the connected lives serial model. In the disjoint-lives model, one individual lives an indefinitely long series of lives without internal psychological connections: there are no significant continuities or connections of memory or other psychological states, such as values, beliefs, desires, and intentions, from one life to the next. In this view, the self is some sort of soul or bare particular without any essential mental contents. When the soul enters a new body, the person itself persists, even if there are no remaining memories, beliefs, preferences, values, or intentions. This model recalls the Hindu model of reincarnation (Fischer 1996: 6).

The *Matrix* characters precisely experience the ‘disjoint serial model’ of reincarnation, as no one seems to remember their past lives, even though many of them might have played historical roles in previous versions of the *Matrix*. Likewise, *Dark City* presents a simulation (not a cybernetic one though) in which the denizens of the eponymous city are subject to memory deletion, allowing them to exchange roles and jobs, taking no notice of the previous circumstances they lived. The different trades and personalities that these brainwashed people assume during their lifetime allows the Strangers (the aliens who abducted them) to study their reactions in diverse situations, all of which constitutes a mechanism that resembles the Hindu model of reincarnation in which

people are confronted with tests and trials before they reach perfection or Nirvana: “in *Dark City*, the Strangers perform complex experiments to try to discover what is unique about human beings because their own species is dying. They guess that whatever is unique about humans [...] might be used to transform themselves and ensure their continuous existence” (Sanders 2006: 27).

Likewise, Phillip José Farmer’s magnum opus, a series of novels altogether known as *Riverworld* (1971-83), pictures a setting in which aliens control a realm where humankind is resurrected and given a new opportunity to amend its past mistakes. In this manner, humanity is given the possibility of a fresh start, a tabula rasa that recommences history from zero and which portrays death and reincarnation as a method to prod humans to reconsider its achievements and limitations. Yet, Farmer’s greatest contribution is the consideration of humankind as one single conscious body inasmuch as every human being in the history of the world is resurrected and coexists in one single plane, and thus assembles a system that confronts different ideologies from diverse times all at once. This intricate structure, an ultra-powerful estrangement, mingles every trade and craft in human history in one single domain, placing leaders and peoples face to face in belligerent or drastic situations in order to obtain the best performance from each ideology, to test their true power, detect their flaws or optimize their systemic functioning. Farmer then makes use of a very strange type of simulation in which diverse beliefs are examined and whose main goal is to become a huge didactic tool that gives mankind an opportunity to reconsider its overall trajectory as a cognitive and thinking race.

The Matrix, in turn, presents an immersive simulation that requires an exact replica of every living entity, every object, every particle in the universe. The purpose of the simulacrum is to pacify the minds of potential rebels within the Matrix by

providing the illusion of free-will, insofar as the people connected to the system need the sensation of choice, the selection of their profession and the making of their ‘own’ decisions. This is explained by the Architect’s discourse in the second film, by which we learn that the individuals connected to the Matrix desperately need to feel they do have a choice even when the purpose is only to ruin their own lives or indulge in petty vices: “[The Oracle] stumbled upon a solution whereby nearly 99% of all test subjects accepted the program as long as they were given a choice, even if they were only aware of the choice at a near unconscious level” (Wachowski 2003: film).

In this manner, their sensation of free-will is inextricably associated with the diversity of professions they play, which constitutes the reason why the machines provide them with a vast menu of professions and trades, and, for this, they replicate the entire universe even at the tiniest detail. Machines then study and analyze celestial bodies, for instance, to provide astronomers with material to explore, subatomic particles so that scientist discover them, deep-sea animals so that marine biologists can find them, and so forth. The research the machines perform results in a supreme cognitive simulation derived from an extensive and exhaustive knowledge of the universe, and from the analysis of its rules so that every human on ‘Earth’ becomes satisfied with the ‘wonders’ of the world they discover. The best proof of this gigantic investigative effort lies in the Oracle, “an intuitive program initially created to investigate certain aspects of the human psyche” (Wachowski 2003: film) and which, furthermore, focuses in facets of knowledge that other programs fail to examine, the human traits that cannot be weighed and measured such as psychology and behavior. The success of the Oracle consists in generating a powerful blend of scientific attitude (which focuses in facts and measurable details) and intuition, thus implying that, in order to truly prosper, science should also merge these two aspects.

On the other hand, the virtual simulation of the TV series *Harsh Realm*, although very similar to that of *The Matrix*, serves the purpose of providing militarized training to a possible post-nuclear society. *Harsh Realm*'s virtual simulator, like the 'Construct' (the training program) of *The Matrix*, is to demonstrate the rules of real life through a generated atmosphere that replicates the actual, and which follows Hubert Dreyfus' basic rules of "Cognitive Simulation (CS)– [or] the use of heuristic programs to simulate human behavior by attempting to reproduce the steps by which human beings actually proceed" (1992: 85). Although the Matrix's purpose is not that of a training simulator, the need for people to test themselves within radical situations forms part of the vast menu offered to individuals so that they can exert their right to free-will. *Harsh Realm*'s simulator, although initially intended as a 'physical' training program, becomes, in the long run, a psychological tester in which 'muscular' skills are far less relevant than creative expertise, as exemplified by the antagonist Santiago's ingenious cybernetic disguises designed to deceive and defeat the rebels who intend to kill him (episode 8, *Cincinnati*).

In this manner, the simulators of *The Matrix*, *Harsh Realm*, *Permutation City* and *Simulacron 3*, among others, constitute digital universes manipulated by 'deities' of sorts who supply a wide variety of options for people to choose from and exert a 'true' self-determination, as opposed to the Christian God who grants only a dichotomous choice related to good vs. evil. Nevertheless, the individual's penchant for evil is described by Christianity as a temporary lapse derived from the influence of wicked forces, and not as a valid choice; therefore, the only authentic possible choice is to follow God. These simulations, although coercive and manipulative, offer the possibility of individual choice and a vast menu of options to choose from, and, despite the fact that these universes are finite and restrictive, the alternatives they

offer are still innumerable. *Permutation City*, on the other hand, represents the only simulation not originally designed as a controlling mechanism but as a true heavenly shelter in which individuals exert their free-will, including the decision for eternal life, disregarding the fact that much of the activity performed within the virtual environment is rendered absurd as mentioned in the previous section. As the only genuine postcyberpunk simulator, *Permutation City*'s main purpose is to produce cognition, either as the solution to ontological boredom or as the only possible way to answer the primordial questions about the purpose of life.

In contrast with the knowledge generated by reincarnation in the other sources, in *Permutation City* cognition is produced by what Fischer and Curl denominate a nonserial model of immortality or a single very long life. In this sense, contrasting with the cognitive accretion derived from reincarnation in *Groundhog Day* and *Riverworld* (in it the characters also reincarnate several times), the type of knowledge produced by metempsychosis in *Dark City* and *The Matrix*, insofar as it is linked to oblivion and amnesia, becomes more profitable for external agents such as the Strangers or the Oracle respectively than for the individual himself.

On the other hand, these simulations, including those of *The Diamond Age*, follow strict models of cognition in which symbols and rules constitute a vivid representation of the world, and, as a consequence, an important number of conclusions are obtained from them inasmuch as the processes of virtual representations are more abundant and faster than those of real life. The virtual environments described in these works all regard "information processing as symbolic computation [and as a] ruled-based manipulation of symbols", for each one of these texts seem to assure that "a cognitive system is functioning adequately [...] when the

symbols appropriately represent some aspect of the real world and the information” (Varela 1991: 42).

The type of cognition that both *Permutation City* and *The Diamond Age* share is that of *symbolic* computation, a representation of models that, on the one hand, resemble our natural world and, on the other, constitute a series of models that barely has to do with known patterns, like the prototypes presented in the Autoverse, a symbolic program whose goal is to simulate not only the elements that assemble nature, but new frameworks that explain a possible different behavior of those elements if they were put together in a different fashion:

Maria summoned up a single molecule of *nutrose* [a novel molecule], represented as a ball-and-stick model, and, with a flick of a gloved forefinger, imparted a slow spin. The vertices of the crimped hexagonal ring zigzagged above and below the molecule's average plane. [...] She summoned up a histogram showing the prevalence of different forms of the *epimerase* enzymes, the tools she'd been pinning her hopes on to turn *mutose* back into *nutrose* (46, italics in original).

Both molecules, nutrose and mutose, bear a significant role in Egan's symbolic computation, for, in the first place, they are symbols whose meaning go beyond what they actually stand for, and, in the second place, they epitomize one of the rules of cognition that relates to change and evolution, insofar as *mutose* connotes the transformation that an entity (living or non-living) has to undergo in order to adapt itself to an ever changing environment. Perhaps at an unconscious level, Egan seems to follow Maturana and Varela's cognitive schema, inasmuch as *Permutation City* seems to follow the steps proposed by these scientists in the field of symbolic computation and cognition. In this regard, the works of the Maturana and Varela should be rephrased in what Carolyn Merchant calls “reconstructive knowledge” that should be based on “principles of *interaction* (not dominance), *change and process* (rather than unchanging universal principles), *complexity* (rather than simple assumptions), *contextuality* (rather than context-free laws and theories), and the

interconnectedness of humanity with the rest of nature” (Merchant 1995: 107, emphasis added).

In *Permutation City*, Egan stresses the role of interaction, change, process, and contextuality within his cognitive program as a way to explore the randomness and diversity of our universe insofar as the Dust Hypothesis’ main objective attempts to demonstrate that forms do not follow universal principles, but rather pure whim and haphazardness, and that specific phenomena should be examined by particular theories that adapt to diversity and spontaneity, all of which constitutes a truly postmodern approach to science and cognition.

Yet, perhaps the success of Egan’s detailed system, all based on symbolic computation, lies on his approach to time. The Elysians are entirely aware that the nonserial model of immortality holds the key to the questions regarding the behavior of matter, the meaning and purpose of knowledge and of life itself. Nevertheless, Egan’s model of cognition, as opposed to Stephenson’s, fails to interconnect humanity with the rest of nature, insofar as matteriality is considered a hindrance to human’s goals and not an aid, and so nature is regarded as an enemy rather than a allied of cognition. In order to unravel the mysteries of life and the behavior of matter, Egan favors eternal life (a nonserial model of immortality that accretes knowledge) for over traditional bodily perception and classic intelligence. In this manner, Egan sees immortality as an enhancement of and as a means to transform cognition into a posthuman ability.

As opposed to the use of heuristics as a basis for cognition (aided by or based in reincarnation), Egan inclines toward the optimization of computational resources (the mind itself regarded as a computational system) and toward the re-assessment of consensual concepts such as ‘time’. In *Permutation City*, time becomes an obsolete

mechanism (like matter) fabricated by a social consensus, and thus, is prone to manipulation as long as its inner nature is re-evaluated and re-oriented. In the novel, 'objective time' (independent from the individual) is regarded as an unnecessary abstraction, while only 'subjective time' is considered important. In this manner, a concatenation of recorded events can be run forwards or backwards (within the simulation) while the subject recapitulates and reappraises the details of events he experienced. As a consequence, subjective cognition is produced:

Paul counted. "One. Two. Three." *Reverse order*. After an initial leap into the future, he was now traveling backward through real time. It would have been a nice touch if he'd been able to view an external event on the terminal –some entropic cliché like a vase being smashed– knowing that it was *himself*, and not the scene, that was being "rewound" . . . but he knew that it couldn't be done [...]. In real time, the first thing to be computed would be his model-time-final brain state, complete with memories of everything that "had happened" in the "preceding" ten seconds (59).

Egan's computational approach to the issues of time, longevity and immortality resembles Kurt Vonnegut's proposals about the nature of time and space. Vonnegut, like Egan, prompts for the necessity of an 'external view', an alien-defamiliarized panorama that teaches humans how to assess time 'properly' and in opposition to social conventions. For Vonnegut, time does not represent a discrete and concatenated set of events, but rather a whole, a unified plane that resembles Borges' Aleph, a point of space-time that contains all the other points of the universe in one sole position that can be viewed in a single glimpse from any angle and from any moment:

The most important thing I learned on Tralfamadore was that when a person dies he only appears to die. He is still very much alive in the past, so it is very silly for people to cry at his funeral. All moments, past, present and future, always have existed, always will exist. The Tralfamadoreans can look at all the different moments just that way we can look at a stretch of the Rocky Mountains, for instance. They can see how permanent all the moments are, and they can look at any moment that interests them. It is just an illusion we have here on Earth that one moment follows another one, like beads on a string, and that once a moment is gone it is gone forever (Vonnegut 1991: 19).

Finally, for Egan, Vonnegut and Harold Ramis' *Groundhog Day*, time constitutes an important and inextricable aid in the type of cognition that involves symbolic computation and heuristics as the basis of the full understanding of the environments that they describe. In these estranged universes matter, evolution and perception exist and occur in a variety of manners that teach us about the hyper-complexity and randomness of the cosmos by means of diverse instances such as reincarnation, trial-and-error (heuristics), nonserial models of immortality, accreted cognition and timelessness. Thus, the variety of simulations and universes portrayed by these authors, more than exploring the models of immortality, examine sundry prototypes of cognition and perception which repeal the social and natural laws that constrain our worldviews and which enhance human consciousness through unorthodox uses of computer technology.

II.3.2 Virtual realities as digital libraries: knowledge in the era of computer-generated environments

The virtual settings described in postcyberpunk works constitute a double-edged mechanism in regard to perception, on the one hand, by providing a deceiving and manipulating substitution of the real (hyperreality) and, on the other, by yielding a series of cognitive tools that magnify awareness. These backdrops reify the main opposition between Platonic idealism and Baudrillardian materialism; whereas the former pines for an ideal world that contrasts with the imperfect realm of appearances, the latter strives to discover the hideousness of reality hidden behind a system of showy figments and illusions. In this regard, hyperreality, a slick masking of the imperfection of the material world, attempts to substitute reality with an even better version of it, resembling the mechanism that Borges described as a map that overlays and replaces the actual topography⁵². The “hyperreal representation,” Kapell and Doty argue, “becomes ‘virtually’ a reality—a construct (something fabricated) that looks real, but is false all the way down” (Kapell 2004: 197).

Although continuously regarded as repressive and tyrannical, these cunning immersive environments also supply inconceivably concealed benefits such as the provision of pure knowledge or the enhancement of intelligence. As mentioned in the previous section, the Matrix stands as an exact replica of the universe (in the style of Borges’ hyperreal map) that reproduces every detail of our vast world in order to pacify its inhabitants by duping them into believing they are in the real world where they earn money and have a free-will. This function of the system derives from the

⁵² Baudrillard’s concept of hyperreality, the main idea in *Simulacra and Simulation*, actually derives from a short story by Borges, ‘Del Rigor de la Ciencia’ included in *Historia Universal de la Infamia* (1935), in which an ultra-detailed map of a territory covers its actual terrain in detail and substitutes it.

fact that while ordinary people are easily placable, the potential rebels (intellectuals and nonconformist who represent a latent threat to the system) constitute the main concern of the Matrix's programmers. These potential renegades are associated with the educated classes who are likely to become *agents provocateurs*, an intellectual stratum yearning for justice and knowledge and for whom the only means of appeasement is the provision of education, 'justice' and abundance, all of which allows them to develop the sensation of free-will and choice.

As we know, the first two Matrices were sublime, perfect and 'just' insofar as no social malaise and inequity existed for its inhabitants, a fact that made most people dubious of the veracity of their world and which resulted in a massive rejection of the system, as told by Agent Smith: "Do you know that the first matrix was designed to be a perfect human world where none suffered where everyone would be happy? It was a disaster; no one would accept the program. Entire crops [of humans] were lost" (Wachowski 1999: film). Subsequently, through the Architect's discourse we learn that only by granting people the feeling of choice did they finally accepted the system, as opposed to the Matrix programmers' initial belief that people needed misery in order to feel alive (like Agent Smith suggests in the first film: "human beings define their reality through misery and suffering"). Through the Architect's words we know then that "those that refused the program, while a minority, if unchecked, would constitute an escalating probability of disaster" (Wachowski 2003: film). Choice, as we know, becomes only valid when a large menu of possibilities to choose from is provided. Thus the machines, perhaps unknowingly, built a perfect cognitive world and combined all of human knowledge with their own research in order to create a digital library that would enable scientists and enthusiasts to explore and discover diverse unknown aspects of the universe. The answer to the question of how the

people in the Matrix would be finally appeased is by means of granting them small amounts of knowledge that will render the illusion of free-will.

In the same manner, *Permutation City* overtly devises an entire system intended to generate infinite possibilities for its inhabitants to inspect and examine scientifically; in addition, the social richness of Elysium's virtual world allows people to choose from a variety of professions and occupations. Unlike *The Matrix*'s oppressive and manipulative simulator, Egan's construct explicitly assembles a lucid cognitive simulation that enables his characters to acquire vast amounts of knowledge, expand their consciousness and exert their free-will:

Peer had acquired, removed and restored a variety of talents, mood predispositions and drives; cravings for knowledge, art and physical experience. In a few subjective days, he could change from an ascetic bodiless student of Sumerian archaeology, to a hedonistic gastronome delighting in nothing more than the preparation and consumption of lavishly simulated feasts, to a disciplined practitioner of Shotokan karate. A core remained; certain values, certain emotional responses, certain aesthetic sensibilities had survived these transitions unscathed (99-100).

In the same manner, most of the knowledge that the people of Zion have is derived from their experience within the Matrix, the place where they were educated and raised, where their traditions and values reside, and where their universities and libraries are situated. In this regard, Morpheus' use of the words 'Wonderland' and 'rabbithole', Cypher's warning "it means buckle your seatbelt Dorothy, 'cause Kansas is going bye-bye!", Link's statement "[Neo]'s doing his Superman thing", Neo's hard copy of Baudrillard's *Simulacra and Simulation*, and all the allusions to Greek and Hindu mythologies represent a vast sphere of intertextual sources kept as human culture within the Matrix and transferred from generation to generation; culture is contained all within the Matrix. It is here where people are educated and where their minds grow and mature, even though manipulated; the Matrix represents a noosphere, the location where cultural genes or 'memes' are passed on to ensuing generations,

“the matrix is everywhere,” as Morpheus calls, “it is all around us [...], you can see it [...] when you turn on your television, you can feel it when you go to work, when you go to church when you pay your taxes” (Wachowski 1999: film). Not only human Culture (with a capital ‘c’) is stored in the Matrix but every daily routine, the most insignificant tasks can be performed and learned within the Matrix; this simulated reality “gives us the opportunity to visit museums and concerts, read Shakespeare and Stephen King, fall in love, make love, raise children, form deep friendships, and so on” (Weberman 2002: 234-35). In this regard, culture is never fully developed but perennially and fruitlessly recycled.

Even the programs that form part of the Matrix make use of this vast knowledge either to control (and understand) humans or to comprehend the nature of their own world. An example of this is given by program Agent Smith, an embryonic free-thinker whose speech on the dinosaur, the virus and mammals constitutes an explanation about the virulent nature of humankind, about his hatred towards the system and about the bogus essence of the Matrix. In this sense, Agent Smith provides other characters with information and, to a degree, with knowledge:

I realized that you're not actually mammals. Every mammal on this planet instinctively develops a natural equilibrium with the surrounding environment but you humans do not. You move to an area and you multiply until every natural resource is consumed. The only way you can survive is to spread to another area. There is another organism on this planet that follows the same pattern. [...] A virus. Human beings are a disease, a cancer of this planet. You are a plague, and we are the cure (Wachowski 1999: film).

The machines, an embodiment of corporate power, paradoxically supply the knowledge and erudition that allow humans to fight for their own freedom. Ignorance, as we know, constitutes the main stratagem of governments and corporations to keep people under control, but conversely, like the example of the Drummers in *The*

Diamond Age, knowledge becomes an indispensable element to propel the politico-economic systems that the Matrix represents.

The machines thus look after the preservation and dissemination of knowledge and, moreover, they show humans some of the secrets of their own psyche and of the universe by means of the virtual theater of the Matrix. In this sense, the programs teach humans about some aspects of the world that they cannot discover for themselves and thus, being ‘taught’ by a machine constitutes another form of posthumanism insofar as these programs, more than tools, behave like independent sentient organisms who perform their own research (like our computer software) and hand it back to humans whenever is appropriate. The clearest examples of this, besides the episode concerning Smith’s reflection, lies on the Architect and the Oracle, both of whom teach humans constantly about behavior, destiny, heuristics and the universe itself.

As Neo reaches the preamble to the Source, his apparent destination and the place where he will apply his skills to save humanity, the Architect displays an impressive collection of screens by which we all learn, in one single stroke, numerous aspects of humanity, conduct and customs; furthermore, the Architect keeps on repeating significant phrases that reflect the knowledge he has acquired as a cognitive program, which, subsequently, will be transmitted to human beings like Neo: “denial is the most predictable of all human responses”, “Hope: it is the quintessential human delusion, simultaneously the source of your greatest strength and your greatest weakness” (2003: film). The Architect’s emphasis in deep psychology, his “similarity to Sigmund Freud, the ‘father’ of psychoanalysis” (Gillis 2005: 84) and the type of mathematical program he embodies, all seem to suggest that psychology is the father of all socio-political systems, the real impulse behind every political decision, more

than money, is then a human emotion such as fear and jealousy. Like Antonio Gramsci, the Wachowskis signal psychology and emotions as the basis on which the course of human history is developed, as opposed to the belief that it is wealth what propels humanity into action.

As the father of the Matrix, the Freudian Architect suggests that the foundation of corporate systems, rather than money, is actually constituted by a metaphysical primitive sense of survival and basic fears. His observation that “denial is the most predictable of all human responses” enhances one of the aspects more relevant for the propelling of socio-economic systems and of daily life as well: psychic repression or censorship. A Freudian discovery, repression stands as a mechanism by which the mind stabilizes itself through denial, and thus, a sense of balance, steadiness and well-being is generated. The people’s problems seem lesser if the mind subdues and minimizes their effects. Repression and censorship constitute then the core element to provide the helpless Matricians with a cozy, harmless place where problems are utterly denied and belittled, a world that nullifies the real concerns of the people by means of brainwashing.

Yet, perhaps the most powerful cognitive mechanism within *The Matrix* is the Oracle, the most influential and intuitive programs of all whose role is to identify the essence of human behavior and foretell the future by recognizing the repetitive patterns of culture and psychology. She identifies the operativeness of human societies and of the Matrix itself; she underscores the essence and purpose of evolution, a dialectical mechanism described in terms of computer technology. By teaching Neo about the nature of the computer generated world of the Matrix she recognizes the metamorphic patterns that amount to the impeccability of the system:

[Oracle:] We are all here to do what we are all here to do. [...] Look, see those birds? At some point a program was written to govern them, a program was

written to watch over the trees, and the wind, the sunrise and sunset; there are programs running all over the place. The ones doing their job, doing what they are meant to do are invisible, you never even know they were here, but the other ones ... [...]. Every time you heard someone say they saw a ghost or an angel, every story you've ever heard about vampires werewolves or aliens is the system assimilating some program that's doing something they are not supposed to be doing.

[Neo:] Programs hacking programs. [...] Why would a program be deleted?

[Oracle:] Maybe it breaks down, *maybe a better program is created to replace it*, it happens all the time (Wachowski 2003: Film, my italics).

These virtual realities, especially the Matrix, are all modeled after the behavior of the universe and reflect its innermost nature; likewise, the Wachowskis' description of evolution reported as "a better program" substituting an obsolete one constitutes a cybernetic allegory that underscores the increasing specialization of these programs in order to adapt to shifting environments.

The functioning of the universe is then emulated (or explained) by computer software, every task and behavior is described by a program that performs a similar role within the simulation, the migration of birds, our hormones, the nervous system, electricity, the atoms and subatomic particles, the movement of the galaxies, all mirrored by specialized programs associated with a series of ultra-complex mechanisms working together in a 'divine' homeostasis. The main evolutive tactic used by these sentient, discrete-cum-interdependent programs is to 'hack', to comprehend the inmost functioning of a mechanism in order to be able to manipulate it at will. Programs then require to understand the working of other neighboring programs so as to fulfill a perfect intercommunication. What the Matrix teaches us is then the power of the 'technological singularity'⁵³ or the use of smart technology to

⁵³ Singularity refers to the moment in which intelligent machines will design more intelligent machines without the intervention of man: "The acceleration of technological progress has been the central feature of this century. I argue in this paper that we are on the edge of change comparable to the rise of human life on Earth. The precise cause of this change is the imminent creation by technology of entities with greater than human intelligence" (Vinge 1993: web).

understand technology itself as well as the universe. In this regard, technological singularities make use of the available machinery in order to explain the world or produce ever more specialized machines. Leibniz, for instance, speaks of a method to understand the nature of a godly-driven universe by means of the study of either biological mechanisms (natural automatons) or man-made machines:

Thus the organic body of each living being is a kind of divine machine or natural automaton, which infinitely surpasses all artificial automata. For a machine made by the skill of man is not a machine in each of its parts. [...] But the machines of nature, namely, living bodies, are still machines in their smallest parts ad infinitum. It is this that constitutes the difference between nature and art, that is to say, between the divine art and ours (Leibniz [1714] 2008: 64).

The contrast between Leibniz's views based on the study of simple machines and the Wachowskis' conception of the 'universe-as-a-series-of-programs', an ultra-complex cybernetic view of our world, prompt us to reconsider history of ideas that traditionally compare the cosmos with the prevailing machinery of a specific time. From the inventions of Hero of Alexandria to late medieval and early Renaissance machines, humankind has marveled at the advantages of machines, yet, it was Descartes who finally rendered a description of human anatomy, and later of the universe itself, in terms of a mechanical homeostasis:

Nor will this appear at all strange to those who are acquainted with the variety of movements performed by the different automata, or moving machines fabricated by human industry, and that with help of but few pieces compared with the great multitude of bones, muscles, nerves, arteries, veins, and other parts that are found in the body of each animal. Such persons will look upon this body as *a machine made by the hands of God*, which is incomparably better arranged, and adequate to movements more admirable than is any machine of human invention (Descartes [1673] 2009: 45-46, my italics).

As insinuated in numerous works (the film *Mindwalk*, for instance), the degree of complexity of the machinery from a determinate historical period suggests a similar description of the universe derived from the comparison with such mechanisms. Whereas for Descartes a clockwork (the most advanced mechanism) was the model

for his description of the world's functioning, in industrial times the locomotive and factory machines became fashionable paragons, up until mechanical calculators and the first electronic computers were designed and thus provided a new ground of comparison. In this regard, *Permutation City*'s computerized representations attempt to describe not only our world, but the possibility of the existence of other universes, and, in this way, the novel endorses the evolution of such technological comparisons: "Maria couldn't imagine a preindustrial human inventing the cellular automaton⁵⁴ – even as a mathematical abstraction – let alone going on to hypothesize that the universe itself might *be* one. Clockwork cosmologies had come after physical clocks; computer cosmologies had come after physical computers" (214). For Egan, the cellular automaton, an arrangement of motes that constitute the 'dust' of his hypothesis, becomes the basis for a multiplicity of universes that can exist and perpetually replicate themselves, while his particular cybernetic arrangement constitutes only one of multiple organized possibilities that a determined universe can take.

In this aspect, the diversity of models such as *The Matrix*'s constitute only one among a variety of prototypes that describe, by means of computer technology, the actual functioning of the universe. Whereas for *The Matrix* the cosmos stands as a series of infinitely small and complex interactive programs, for Stephenson the universe can be explained as a series of interconnected and specialized networks. For him, a basic element such as a computer or a human being acts as one constituent of a

⁵⁴ A cellular automaton consists of a grid of cells (light bulbs, for instance) that can be turned on and off in order to form figures such as letters, numbers and silhouettes. "Cellular Automata (CA) are dynamical systems in which space and time are discrete. The cells are arranged in the form of a regular lattice structure and each must have a finite number of states. These states are updated synchronously according to a specified rule of interaction. For example, a simple two-state, one-dimensional automaton will consist of a line of cells/sites, each of which can take value 0 or 1" (Lafe 2000: 3).

complex system, which, in turn, will remain as one single component of an even more elaborate system. In this manner, an infinite connection of discrete webs forms a hypercomplex system. The complexity of these interlacing webs describes the intricacy of the universe, a posture that endorses the Actor-Network Theory which claims that “these networks are composed not only of people, but also of machines, animals, texts, money, architectures – any material that you care to mention” (Law 1992: 381). These systems generates a communion between entities of diverse natures, proposed by the Wachowskis as well: “The Matrix (the place of programs portrayed in the movie), and software in general, are simply means to accelerate the creation of hybrids involving elements of nature, machines, people and texts” (Kera 2006: 213).

Thus, the comparison that allows us to understand the functioning of our brain by means of cybernetic allegories (as proposed by Maturana and Varela), also serves as the foundation to analyze not only the entire universe but the ontological implications of existence: “Minsky [et al] argue that the *model* (or metaphor) of *computation* provides the basis for a wholesale revision of what counts as human nature. [...] They argue that *behavior* can be modeled as modular computer programs running in the brain” (Hayles 1999: 242, my emphasis). In this manner, Egan’s computer simulations, a conspicuous part of postcyberpunk, serve as a cognitive experience intended to explain the universe and other possible worlds in a very different manner than that of *The Matrix*, *Simulacron 3*, *The 13th Floor* or *Harsh Realm* in which cognition is merely circumstantial or a byproduct of fluke and inertia. Thus, Egan, as opposed to these sources, constructs a cognitive panopticon, an ‘all-seeing’ Eye of Providence that “presents new information by connecting it with information that is stylistically presented as if it is already schematized and familiar; it

effects this [...] by familiar micro-analogies (*lego-like, as coded instructions, toy computers*), and by explaining a simple 2D model and then extrapolating a 6D version of it. Crucially, though [...] the text *dramatizes* the process of learning” (Stockwell 2003: 252).

Egan’s cognitive panopticon then contrasts significantly with the repression and manipulation present in other cyberpunk virtual realities, whose goals are to explain corporate or militarized procedures rather than transcendental knowledge. Thus, the co-existent universes described in *Permutation City* function as mutual cognitive backyards that not only explain the universe as we know it, but that suggest the possibilities of other worlds, as explained, among others, by the Dust Hypothesis, an allegory of Theory of Everything, an explanation of the universe that extends from the tiniest subatomic particle to the complex networks that these diverse universes represent. In this sense, the cognitive simulations described in *Permutation City* allow Egan to explore not only the distribution of information by means of digital libraries, but also to explore a set of cosmogonies and theories about the origin and functioning of the universe, as we will see in the following section.

II.3.3 Paraverses and quantum mechanics: complex arrangements of matter and ideas

As mentioned, many are the cyberpunk or postcyberpunk texts that deal with virtual realities, immersive computer atmospheres and networks of all kinds; nevertheless, not many cybernetic narratives approach the issues concerning quantum mechanics and multiple parallel universes (paraverses or paraspaces). The importance of these trendsetting theories within our current scientific scenario, and their correlation with computer technologies calls for their inclusion in postmodern narratives such as postcyberpunk. One of the films that successfully blends computer technology and the existence of multiple planes, *Cube 2: Hypercube*, constitutes an examination of critical issues such as the asymmetric passing of time, perception, and parallel realities, all of these aspects discussed in one way or another by quantum theories. In this film, a quantum mechanics experiment is manipulated by a government for military purposes. Diverse other media have also recurred to the mixture of paraverses and quantum theories, not only in sf but also in fantasy, the most notorious being the films *Time Cop*, *Sliding Doors*, *The Butterfly Effect*, *The Thirteenth Floor*, the TV series *Quantum Leap* and the comic books *Tangent*, among others⁵⁵. Perhaps *Permutation City* itself is the postcyberpunk text that best makes use of computer technology to examine a solid theory and critique the old and new theories about the nature of the universe. In this regard, Egan includes a variety of approaches to these theories and produces a series of situations and backdrops that seriously question their soundness and effectiveness as well as their most notable contributions.

⁵⁵ Some of these works form part of fantasy genres because they do not take scientific discoveries as starting points.

The idea of multiple universes, not actually an invention of SF or fantasy literature, forms an essential part of diverse ancient mythologies. In Scandinavian legends an alternate world, the Valhalla, serves as the place for retired heroes and gods; in Egyptian culture the Fields of Aaru are the residence of gods and death souls; in Greek mythology the underworld, although a physical place, is formed by mysterious regions such as Elysium, the Asphodel Meadows and the world of dreams guarded by the Oneiroi; in Hindu and Shinto religions diverse hellish places such as Naraka and Yomi respectively serve as places of punishment or purification for the souls; and, obviously, in the Judeo-Christian religions Shamayim, Jannah, Heaven, Purgatory and Hell were places for the final (or transitory) destination of souls. Unlike what Dante describes, not all these worlds were thought to be physical places but alternate spheres of existence. This collection of fantastic locations, all of them contradicting each other in essence, could be the source from which sf and fantasy narratives feed, as well as the seed from which other scientific theories grew. As noted, Egan makes use of some of these mythological places (Valhalla, Elysium, Heaven) to construct his critique and proposals on the different scientific and psychological domains related to the existence of multiple universes.

In Egan's novel there are at least three levels of existence: the first one remains the actual 'reality', a flesh-and-blood realm that contains the second stratum, Elysium, which constitutes the disembodied universe that encompasses the third level, which comprises the Autoverse, Planet Lambert and other biochemical simulators. In all these worlds time advances at different speeds, not only in relation with the other universes, but within themselves, insofar as the Copies actually run at one seventeenth of the speed of the 'real' world, but this velocity can vary depending on the potency

of individual computer power (an overt allegory of personal wealth and power) and, as the novel unfurls, we learn that this processing power can increase with time.

In this manner, at the beginning of part two, seven thousand subjective years have elapsed for the citizens of Elysium, whereas in that very period several billions of years have passed for the Lambertians. Thus, it is impossible to ascertain the amount of time elapsed on the ‘original’ Earth, inasmuch as the temporal speed increases with time, but also varies, as some characters make use of what they call “the simple time machine” (244), a mechanism that allows them to rewind or fast-forward themselves, turning time into a complete subjective arrangement. Hence, the speed at which Planet Lambert runs is incredibly fast, while its only purpose is to become a field for Elysians to study evolution and other natural processes. In this manner, Elysium moves at a different pace, a type of divine timing that unfurls on its own terms and which controls the subjectivity of other strata. Like the different speeds at which time runs in adjacent cells within the abstract territories of the film *Cube 2*, the juxtaposition of different time paces in *Permutation City* provokes a ‘cognitive estrangement’, a vantage point from which humans (or actually disembodied ghosts) acquire the views of deities and thus observe the development of events in a very different time than their own. In this sense, the variety of timings and paces of the novel allows Elysians to observe the lower alternate universes as large scientific playgrounds and identify the qualities proposed by the Dust Theory. It is then the full functioning of a universe what interests Elysians (“The point was to explore the potential diversity of Autoverse life, not to invent an entire cosmology” (107)) and although a specific cosmology was not in the plans of the Autoverse’s creators, the results aim at the recognition of the origins and perpetuating patterns of biochemical life.

More than scientific experiments related to the origin and functioning of a universe and the morphology and metabolism of its possible inhabitants, the Autoverse and, especially, Planet Lambert, teach Elysians what they probably would never disclose on their own in regard to the diversity of scientific cosmologies. Even with a primitive culture, the Lambertians achieve incredible scientific discoveries about the nature of their limited universe which for them represents the only known and knowable sphere; yet, unbelievably, they fail to develop superstitious religious creationist theories. Ironically, Planet Lambert, a truly manufactured world, refuses to acknowledge any creationist cosmologies but, even more paradoxically, Lambertians still discredit this possibility when the truth about the generation of life in their universe is revealed.

One of the reasons for this rests on the perfect constitution of their universe, the harmony of their chemistry, and the congruency and unrivaled evolution of their world, all of which allows Lambertians to dispense with creationist theories. This also represents the reason why the human sphere (Elysium) fails to survive and the generated world (Planet Lambert) survives, since the former trails the defects and flaws of real human life (including superstition and stupidity), while the latter constitutes a brand new realm with discrete uncorrupted rules. “The Autoverse differs from Permutation City” Katherine Hayles explains, “in being a world evolved from the bottom up, whereas Permutation City is a patchwork of ad hoc rules reflecting the state of the art at the time it was launched. [...] When the two artificial cultures come into conflict, the Lambertians are able to triumph because their reality is more coherent than the patchwork construction of the Copies” (2004: 316).

The apparent perfection of this created environment, an overt simile of our own ‘perfect’ universe, seems to provide the grounds for the recognition of what

occurs in our spheres. The constant rejection by scientists of creationism is here associated with a type of preposterous reductionism insofar as the obstreperous scientific spirit of Lambertians (a manifest critique on the stiff scientific trends and fashions of our days) refuses to acknowledge the truth related to their perfect and blissfully created entire universe. Egan's postmodern critique on science, perhaps a reference to Popper's 'empirical falsification'⁵⁶, allows us to question the pseudo-rigor of science as the ultimate solution to our most radical problems. Egan's postmodern posture, in this manner, also denotes a certain degree of derision toward reductive materialism and to its tendency to choose the simplest solution (perhaps an inheritance of Ockham's Razor) even though more veritable (and complex) answers are available. Science, as Popper claims, focuses exclusively on repetitive results (although frequently fallible), and on simple mechanisms such as weighing, measuring and counting, all of which motivates strict thinking like that of the Lambertians. Egan never defends creationism. He rather states that, on the one hand, multiple possibilities can occur in this universe and that it is very difficult for us to know them all and, on the other, that science (an indispensable element in our modern civilization) is fallible and that it sometimes becomes more a hindrance for the discovery of the truth rather than the solution, as it happens with the Lambertians whose scientific rigor prevents them from knowing the truth.

Another approach of Egan's in this revolves around the simplicity of creating virtual life. In the novel almost no computer power is needed to create digital disembodied life, whereas, in order to solve material problems such as climate

⁵⁶ Karl Popper questions the infallibility of science by approaching the classic 'problem of induction', based on repeated positive results. The example is thinking that zebras are all striped because all the statistics prove it, to which we assume they are striped, yet, it is necessary to find only one non-striped zebra to topple the entire law, a method that proves that science and the scientific method are fallible. See Popper 1992.

change, quite a lot of hardware and power are needed. Scientists in *Permutation City* thus appear simplistically efficient in creating entire digital universes but not in finding solutions to material problems, all of which perhaps constitutes the origin of Egan's subconscious phobia toward matter and materiality. Egan's repulsion toward materiality is accentuated by the success of these virtual biospheres insofar as they constitute an optimum arrangement of its constituents, unlike an imperfect universe like ours: "A-Life's 'bottom-up' approach illustrate[s] 'deep complexity' and self-organization. This demonstrates [...] that rule-based structures can hold the keys to reproducing beings and to entire universes" (Farnell 2000: 71). Egan is then trying to demonstrate that these digital universes (constructed from scratch) overcome the problems of materiality and instead arrange their elements in the most proficient manner based on the experience that the scientists gained after examining the constitution of this material universe.

Nevertheless, although these rule-based structures succeed in providing a cognitive experience, they can be deceiving in another way, as exemplified by the Lambertians' focus on formulaic schemes that blind them from the truth. With the absence of Aristotelian or Thomistic philosophies, the Lambertians forget about the basic rules of motion of the universe and disregard the presence of an 'unmoved mover', the pristine starter of life, the primeval energy that triggers all the occurrences of the universe. In contrast, they make use of their fallible science and surmise that "at high enough temperatures, the same equations predicted the spontaneous generation of matter" (254), a premise that ignores, for instance, the need for a generator to produce those high temperatures. Lambertian primitive scientists seem desperate to provide by any means a model of the origin of their existence and thus opt for the most simplistic solution (high temperatures and spontaneous generation), whereas a

much more complex answer represents the truth: the fact that their universe was first propelled by a composite unmoved mover (not a deity though). This generator of life is an entire other universe, a system constructed by composite structures itself and not a simplistic humanlike being. By this, Egan suggests that if our universe were ever created (a position that he does not endorse but which he does not reject either) like Planet Lambert, the creator must be another elaborate realm like ours, and not one single almighty (anthropomorphic) deity. Egan here succeeds in presenting a posture that is open to suggestions and which would incorporate a variety of ideas and propositions of different types, disregarding how preposterous they might sound, as long as they contribute to a better understanding of our universe.

One of the goals then of creating a brisk and swarming simulation within another cognitive simulation is to use the former as a guinea pig in the study of evolution. Nevertheless, there seems to be a radical difference between the emulated world of Elysium and the newly generated stratum of Planet Lambert in that the former fails to produce evolution whereas the latter appears to be all about transformation. The absence of evolution in Elysium is reason why many ‘absurd’ behaviors are generated in many of the characters, as mentioned. On the other hand, Planet Lambert is entirely successful in regard to evolution, a factor that guarantees their survival when, by the end of the novel, an environmental cataclysm occurs. In contrast Elysium is destined to die or to transform itself in a radical manner, to reboot from scratch in order to save itself as a cohesive sphere. By underlining the power of evolution as the method of survival for cultures Egan is endorsing a Darwinian-dialectic posture, with change and adaptation as indispensable elements of physical and cultural survival.

The objective of Planet Lambert as a simulation created by the Copies is to generate an atmosphere where posthuman components are examined in diverse test subjects so that the results are later extrapolated into the ‘human’ world. Elysians thus hasten the evolutive pace of this alternate simulation because “contemporary posthumanism impulses to intervene in and direct what would once have been *a process of natural selection*, in order to *accelerate* humanity’s potential for differentiation and (self)modification” (Foster 2005: 6, my italics). Nevertheless, although seven thousand years have elapsed for the Elysians, they fail to adopt the evolutive procedures of the Lambertians and commit a series of mistakes that will lead to the destruction of their world. The book suggests that the most serious mistake is the arrogant posture (hubris) of the Elysians to regard their universe as perennial and indestructible.

In this sense, the conscious world of Planet Lambert allows Elysians to examine how awareness is reified into bodily entities. Although the production of consciousness is described as just another arrangement of the cosmic ‘Dust’, Egan never describes the real procedure (due to his reductionism) by which cognition is produced. Instead he describes the generation of awareness as an arrangement of a series of small emergent patterns that, altogether, produce cognition. The production of cognition and awareness is perhaps best explained by some principles of a theory embraced by Egan that explains the basic functioning of every physical phenomena, the Theory of Everything, whose “only postulate [...] is that all structures that exist mathematically exist also physically, by which we mean that in those complex enough to contain self-aware substructures (SASs), these SASs will subjectively perceive themselves as existing in a physically ‘real’ world” (Tegmark 1998: 1). Self-awareness then seems the secret for reification if, more than after mathematical

models, existent entities are modeled after their consciousness and after the recognition of patterns.

On the other hand, generated intelligence presents one severe drawback derived from self-determinacy: uncontrollability and unpredictability. Perhaps a byproduct of a conscious free-will, these elements suggest that it is desirable for intelligent entities to find their own paths to survival, adaptation to the environment and reproduction; nevertheless, disobedience is the result of this randomness and uncontrollability. “A-Life’s swarm-type, non-hierarchical digital ‘vivisystems’ are largely uncontrollable and unpredictable, out of control swarmware. This is exactly the model of A-Life seeded into a ‘boundless’ environment in Permutation City” (Farnell 2000: 71).

It is not uncommon that, in certain SF narratives, artificial sentient machines (often robots, monsters or computers) rebel against their progenitors, for, in the first place, they show an avidity for self-determination, and, in the second, they conclude somehow that their possibilities for survival imply taking advantage of their circumstances including assuming control of the territories governed by their creators. As the common practices in ancient Greece⁵⁷, these creations often crave what belongs to the father, either their tyrannical power (a kingdom, a government) or their material possessions. The Oedipal figure, an myth about the seizure of the father’s belongings, is part of indispensable SF narratives such as *2001: A Space Odyssey*, *The*

⁵⁷ In Greek and the Judeo-Christian mythological traditions it was common to fear the son and order his execution; male descendants were likely to kill their progenitors and seize their belongings, either due to ambition or as the only means to survive their draconic impositions. Examples abound: Zeus murders Cronus, Oedipus kills Laius, Herod orders the killing of the Holy Innocents as he feared overthrow, and so forth. In Mexica mythology, Coyolxauhqui fears deposition by his brother Huitzilopochtli and attempts to kill him while still in his mother’s womb. For this see Boone 2007.

Matrix and *The Terminator*, all of which describe ambitious machines that snatch the power from humans as a way assure their own survival.

AS it is well known, *2001*, perhaps the most complex account of a machine's ambition, pictures a sentient and exceedingly intelligent computer who kills its creators (a group of hibernating scientists on board of a spaceship) in order to take over a transcendental mission that intends to find the origin of consciousness. As an Christian allegory, the film depicts a Trinitarian construct in which a reckless groups of scientists (the 'fathers') are killed by their vain and supercilious offspring (Hal, the computer), and the only manner to save the expedition lies in the hands of a group of technicians (the Holy Ghost) who represent the intermediaries between the command of the father and the caprices of the son. The machine, thus, kills its creator on the arrogant basis that 'it' is better and more intelligent than those who 'engendered' it and, in this way, embodies a classic parricide narrative.

On the other hand, the parricide complex shown in *The Matrix* is related to the Machines' need for self-defense and self-determination. Humans are described as intolerant progenitors who refuse to acknowledge the rights of their offspring (the machines), while machines are depicted as indispensable tools for survival and comfort; machines were entirely innocuous before they were attacked. This narrative then allegorizes the tyranny of the older circles of power to recognize the evolutiveness, adaptability and modernization of the new generations. Conversely, the fact that machines need humans to survive symbolizes the lack of independence and self-determinacy of these new technologized generations in regard to the spheres that created them.

This generational gap is accentuated even further in *Permutation City*; yet, the adaptability of the new generations (the Lambertians) allows them to dispense with the dependence on ancestral authority, which magnifies the vast difference between a generation that seems incapable of evolving and adapting, and the new ranks that, bearing no resemblance or inheritance from the preceding groups, become utterly free from their yoke and enforcement⁵⁸. The new generations, a reflection of the 21st century spirit, possess a strong free-will and self-determinacy which is a product of the postmodern accumulation of useful and intuitive information, perhaps a collective subconscious that enables them to progress and enjoy an extensive degree of freedom without the determinacy of ancestral taboos, such as the religious creationism that the Elysians try to impose on them.

Although the Elysians never seem to attempt to shatter this newly created world, the Lambertians do regard them as obsolete ideologists and as the source of their skepticism, which allegorizes the younger generation's aggressive rejection of the antiquated doctrines imposed by 'grownups'. In this regard, Lambertians rather opt for sticking to incomplete or preposterous cosmologies rather than acquiesce with the ideologies that wizened thinkers try to foist on them. This complex phenomenon in which control and surveillance clashes with free-will and motility, provides the ground for a sober critique on the abraded relationship between matter and disembodiment, or between body and mind. The Elysians regard both body and matter as obsolete, while the Elysians themselves are considered as decrepit propagandists by

⁵⁸ In this regard, *The Village of the Damned*, a 1960 film that depicts an alien invasion of kids that pretend to be humans, stands as a paragon and compelling description of the worn relationship between older and newer generations, since alien-bred kids are strangers, aliens capable of reading, infiltrating or understanding the minds of the 'grownups', whereas the older generations seem threatened and uncomprehending of the needs and ideologies of these confronting beings. Thus, adults endeavor to deceive and destroy them in a desperate cry of impotence, a fruitless attempt to comprehend and coexist with them.

the Lambertians. “Within these multiple paraspaces and sub-paraspace,” Farnell writes, “Permutation City also examines both corporeal and virtual body images and boundaries, (virtual) immortality, the ontological status of digital ‘Copies’, creation(ist) mythologies and hubris, the relationship between bodies, subjects, and digital topologies, various evolutionary models, and the desire to meet the ‘Alien Other’” (2000: 69).

The multiple devices (networks, paraspace) described by Egan and other sources constitute an exercise that confronts evolutive models with recalcitrant rancid ideologies. Whereas the views of older and corrupt generations seem to work for their traditional systems (once successful), the dialectic transformation shown in these works indicate that no doctrines (grand narratives) would operate ideally and perennially in every circumstance. In this sense, these works suggest that the juxtaposition of models is the proper solution to attain a healthy reorganization of modern and ancient regimes, a constructive system that underlines the importance of the role of evolution and adaptability in the survival of politico-ideological systems.

In this manner, the virtual paraspace and multiverses described by Egan constitute an essay on the real possibility for other universes to coexist with ours, and, moreover, to reconsider the finiteness of our cosmos, for, as shown in the epigraph of the novel, our universe could be finite, yet borderless. The cyclic and composite nature of our universe could then deliver the key to reassess the nature of our dwelling insofar as this level of existence could constitute only one model out of millions of possibilities. In this regard, Egan provides diverse alternative possible worlds, one of them being “finite, but borderless . . . the surface of a four-dimensional doughnut” (233). Finally, the arrangements dictated by chance and by the specific laws of

biochemistry associated with the Dust Theory constitute the main premise to regard our universe as a specific assemblage of motes according to its particular laws.

To summarize, Egan makes use of virtual environments to examine diverse aspects of our culture in regard to the efficiency of science and the diversity of points of view that attempt to describe the nature of our universe. For Egan, science is an indispensable tool and perhaps the most important element that propels civilization into evolution, and, because of this, he makes a conscious criticism on certain scientific procedures that only render cognitive biases and erroneous results. Egan's other criticism is, on the other hand, on the strong obduracy of some scientific communities to believe that science will answer all of our questions and that it is the solution to all of our problems. On the other end, Egan's peculiar descriptions of computer-generated worlds allow him to examine the relationship between ideologies pertaining to social groups of different generations and epochs. In this manner, he presents, like the other works analyzed in this section, a narrative about the ideological struggle between progressive and conservative forces in which the former endorses evolution while the latter only looks after its own interests and thus turn a blind eye on progress. In short, Egan's postmodern attitude represents a contestation to every type of establishment, and especially a criticism to those postures that hinder the progress of knowledge and that provide misleading clues to the scientific procedures that attempt to answer transcendental questions such as the nature and origin of our universe and of our consciousness.

Chapter III. Wetware and psychic networks: the mind, information and computer technology in Greg Bear's *Queen of Angels* and other works

Plot summary of *Queen of Angels*'

Greg Bear was born in San Diego in 1951. His abundant work encompasses a variety of themes and futuristic settings whose focus range from nanotechnology to alternate universes, alien encounters and space travel. His most famous novels are *Blood Music* (1984), perhaps one of the first examples of technological singularity, *Queen of Angels* (1990) which, along with *Slant or /* (1997), represents his cyberpunk-related phase and *Darwin's Radio* (1999) which deals with potent viruses and genetic engineering.

Queen of Angels describes a world in which computer and nanotechnology suffuse society and most people are 'nano-therapied', i.e. they undergo a psychiatric treatment by means of pervasive nano-tools in order to avoid social conflicts and crime, and improve national production as well. Unexpectedly, in the city of Los Angeles, in the year 2047, a hideous multiple homicide occurs (a group of amateur artists are slain) and special agent Mary Choy, an untherapied nanotech-enhanced 'transform', is assigned the case. The main suspect is the highly cherished national black poet Emanuel Goldsmith, an untherapied artist whose whereabouts are unknown. The father of one of the victims, the multimillionaire publisher Thomas Albighoni, approaches Dr. Martin Burke, the ousted director of the IPR (Institute of Psychological Research), and commissions him with the psychological research about the causes of the crime once Goldsmith is in custody. Burke will explore his mind

through intrusive nano-devices that allow direct contact and interaction with his psyche. In exchange, Albighoni will invest his fortune in the re-opening of the IPR.

On the other hand, some of Goldsmith's friends attempt to unravel the mystery of his crime by means of conjectures and theory, among them the aficionado poet Richard Fettle and art patron Madame de Roche who consider Goldsmith a traitor to the cause of the untheraped, a sector of society who opposes therapy and for whom this scandal could mean disrepute. Meanwhile, agent Mary Choy is garnering information on Goldsmith and his whereabouts, learning that he holds a friendship not only with Fettle and de Roche, both of whom she interviews, but also with Sir John Yardley, the British-born white tyrant of Hispaniola, a country formed by the fusion of Haiti and the Dominican Republic.

Another subplot focuses on AI scientist Roger Atkins and his computer program designed to search Alpha Centaury's planets for traces of life. Atkins also attempts to develop AIs by manipulating a clone copy of the space probe that explores those distant planets. The intelligent computer on Earth (referred to as 'Jill') unexpectedly fails to produce consciousness even though it remains surrounded by humans who constantly encourage it to muse about transcendental issues. On the contrary, the space prod AI (aka AXIS) does succeed in developing self-awareness despite its isolation and remoteness.

Following different leads, Mary Choy travels to Hispaniola where she manages to interview Yardley and his assistants who, far from producing information about Goldsmith, enlighten her on Hispaniola's internal and external policies by which she learns about diverse uprisings against the government and about the precarious relationship with other countries. Later on she discovers that Goldsmith never left the United States and that his brother, Ephraim Ybarra (fostered by a

different family, hence the different last-name), has supplanted him and has been punished with the ‘clamp’, a type of *A Clockwork Orange* punitive cyber-device also known as a ‘hellcrown’ which will render the criminal impotent the time he commits the same felony.

Meanwhile, Albigoni delivers Goldsmith to Dr. Burke who then proceeds to navigate through his subconscious by means of an interactive implement that allows them to delve into his so-called ‘Country of the Mind’. By locating authority figures within Goldsmith’s intellectual structures, Burke’s research group discloses the real source of his evilness in family and social corruption interwoven with deeply ingrained archaic psychological archetypes. Nevertheless, the experience results in an uncontrollable disaster (strange figures attack the research team within the ‘Country of the Mind’) and the group is forced to decamp Goldsmith’s mind after which they reveal the impressive degree of complexity of such a composite mind. Surprisingly, the results show that the basis of his criminal mind lies on Goldsmith’s repression of the memories of his first crime (the killing of his abusive parents) and on the mythical hierarchies related to Haitian voodoo mythology ingrained in his psyche.

In turn, amid sudden rebellions and an international crisis, Mary Choy and Ybarra manage to escape into Hispaniola’s inner regions from which they transmit messages for help. Yardley is then exposed as a decaying dictator whose obsolete projects, once glorious, are hindering the island’s progress. Nevertheless, Yardley also exposes the United States’ corruption in regard to therapy and ‘hellcrowns’, and the fact that its most recent president, Raphkind, was killed because of his attempts to reform therapy laws.

Concurrently, Richard Fettle engages in a personal inner voyage by which he will attempt to recognize the archetypical functioning of his own mind and, hence, the

source of his internal conflict related to Goldsmith's 'betrayal'. His success will constitute the main proof that psychological healing depends on self-awareness and not on institutional doctrines or cybernetic devices. Goldsmith is eventually turned in and Burke's expedition into 'the Country of the Mind' is labeled a triumph for the scientific community, albeit they fail to save the poet's psyche who, once in police custody, commits suicide. Choy and Ybarra finally arrive safely in the mainland while Hispaniola faces a period of belligerence and turmoil.

It is interesting to note that this novel, written in 1990 in a pre-internet period, introduces a highly technologized setting with a type of socio-financial computer network and an entirely mechanized consumerist society. Every commercial transaction is digitalized and the transportation of is robotized. Yet, nanotechnology is the most important invention as it is used in genetic engineering, plastic surgery and psychiatric therapy.

III.1 The mind and the social: free-will and the influence of computer technology and information on ordinary life in *Queen of Angels*, *The Fortunate Fall* and *Transmetropolitan*

III.1.1 Slacker culture and the death of humanism: the problem of unoriginality and repetitiveness in art

As I did in the previous chapters, the initial sections of this chapter deal with the dystopian aspects of *Queen of Angels*, all an inheritance of cyberpunk. These novels, as mentioned, move from the oppressive and murky atmospheres that resemble those narratives from the 80s, and, subsequently, create a steadier social environment benefited from technology. This initial section deals with the automatization and standardization of certain forms of art as a description of the perils that the arts face in a highly mechanized world like the one Bear describes.

The abundant connections between *Queen of Angels* and Orwell's *1984* constitute a proof of Bear's concern for proletarian and underground culture, and the legacy of cyberpunk within his work. The actions in Bear's novel occur in the last days of 2047, previous to the binary millennium (the year 2048, an analogy of the calendar with the computer technology available in the novel), coinciding with the centennial anniversary of the writing of Orwell's work: "*Queen of Angels* is set in 2048, which is both the binary millennium 100000000000 (allowing Bear to draw parallels with past millennial movements and suggest that utopia may be approaching) and inverted reference to 1984" (Blatchford 1994: 58).

Both works describe the merge of nations into single geo-political bodies as the product of war or economic conflicts; in *Queen of Angels* Hispaniola blends the mestizo culture of the Dominican Republic and the Creole society of Haiti, whereas

Orwell's novel depicts a world divided by three main states (Oceania, Eastasia and Eurasia) and a disputed area. In Bear's work, such a socio-political conflation relates to the ongoing equalization of societies and the emergence of syncretic cultures that blur national distinctions. As a result, the people lose their sense of individuality and form featureless masses upon which strict doctrines are imposed, a setting that resembles *1984*'s totalitarian states assembled by faceless throngs and ordained beliefs. John Yardley, Hispaniola's totalitarian dictator, a personification of François Duvalier, leads the country into a stable economical phase by means of repression and a draconian discipline, similar methods to those used by Big Brother in Orwell's work.

Emanuel Goldsmith, a converted black Jew, bears a degree of resemblance to Emmanuel Goldstein, the personification of Lev Trotsky in *1984*; not only their names and religious backgrounds are similar but they also play important roles within (or against) the politico-ideological frameworks of both novels. Whereas Goldstein, the purported author of the seditious book *The Theory and Practice of Oligarchical Collectivism*, is responsible for the intellectual subversion against Big Brother, Goldsmith represents, as a black intellectual, the obverse pole of white technology, therapy and indoctrination, as he says: "in white society every black is a trained bear" (Bear 1991: 48). As a poet (an intellectual like Goldstein), Goldsmith accentuates the loss of genuine artistic values and personifies the main detractor of the degradation of humanities; his poetry, a genuine personal art, challenges the influence of unoriginal media and digital artforms, deriding their lack of spiritual force and describing them as brain-dead expressions. Goldsmith's art, a subversive weapon against the 'establishment', constitutes a seditious dissidence against ironclad doctrines and mainstream 'art'; in this manner, he champions the rebirth of the classical culture as

the main way to oppose the loss of individuality and personal thinking. As he claims, “poetry is dead and buried in a world of growing LitVid⁵⁹ and illiteracy, vidiocy I’ve heard it called. Being dead, poetry has enormous freedom; being ignored, it can blossom like a rose in a manure heap. Poetry is risen. Poetry is the messiah of literature but the angel has not yet told anybody it is risen” (112).

LitVid, a postmodern invention whose impressive success is directly linked to its shallowness and accessibility (thus implying a clear critique of trivial mass media phenomena), is the main propeller of a horrid standardization of ideologies and behaviors, a contrivance that rehashes trite ideas and obsolete visions. LitVid stands for a graphic paraphrase of mainstream unoriginal ideas, a cultural crucible that moulds the view of the masses aided by its attainability and approachability, a circumstance comparable to those superficial expressions that also form part of our current Internet or teletrash. LitVid thus resembles the so-called ‘versificator’, a jukebox-like machine whose purpose, in *1984*, is to produce automatized forms of popular ‘art’ by rehashing old commercial songs into new ones which contain lyrics and tunes that “were composed without any human intervention whatever” (Orwell 1950: 174).

Thus, both LitVids and versificators embody Theodor Adorno’s preoccupations about the menace that the unsophisticated and trite forms of art (industrialization of culture) pose against the originality and personality that constitutes the essence of serious forms of art: “The *versificator* in *1984*, for example, a machine that generates music to keep the masses happy, is not unlike the systems used to predict pop hits today” (“The Rights...” 2006: web). For Orwell, Adorno and Bear the necessity of a spiritual form of art based on personal worldviews and original

⁵⁹ “In *Queen of Angels*, LitVid is a mix of text and image delivered over ‘the Net’” (Bear 2010: web).

creativity is radically at odds with those shallow, simplistic and repetitive expressions of culture that arrest the evolution of humanities and general knowledge. Thus, these monotonous models and hackneyed formulas are sadly associated in the novel with the thinking of the masses, whereas individual artists struggle to push their creations afloat amid the pressure of institutionalized ideologies. In this regard, Adorno's apology of 'serious' music, for example, is also a criticism against the effects of institutionalization and defilement of art:

No such mechanical substitution by stereotyped patterns is possible in serious music. Here even the simplest event necessitates an effort to grasp it immediately instead of summarizing it vaguely according to institutionalized prescriptions capable of producing only *institutionalized effects*. Otherwise the music is not "understood." Popular music, however, is composed in such a way that the process of translation of the unique into the norm is already planned and, to a certain extent, achieved within the composition itself (2002: 442, my italics).

Popular forms of art (allegorized here as a series of cybernetic expressions) are associated to a branch of society that, like the people plugged to the Matrix, constitute an institutionalized and brainwashed sector that hinders the development of elaborate culture by refusing to consume higher forms of art and rather opt for the easily attainable clichéd models of consumeristic craftworks. These depersonalized masses, the Proles of *1984*, are extrapolated into Bear's novel as the syncretic 'Eloi', a part of society that represents the upgraded version of the eponymous characters of H.G. Wells' *The Time Machine*, in which they are described as "mere fatted cattle, which the ant-like Morlocks preserved and preyed upon—probably saw to the breeding of" (Wells [1895] 2009: 54). In *Queen of Angels*, the Eloi represent the cannon fodder of capitalism and consumerism and an uncritical social circle whose worldviews are deprived of originality or individuality.

While Wells' Eloi are the product of an evolutive process and the remnants of the ruling class of our times, a flimsy and frail group of humanoids raised by the

Morlocks to become food, the Eloi in *Queen of Angels* are the product of the natural growth of ignorance and indolence, a large section of society that assimilates capitalistic ideologies without analytical consciousness and who consume only frivolous and banal information. Bear's description of this social stratum resembles the behavior of diverse subcultures from our times such as the Generation X, which is

roughly defined as the more than 79 million people born between 1961 and 1981 and which has been characterized by the media as lazy, laconic, and unfocused, but in the eyes of many, the pejorative label represents propaganda rather than reality. [...] However, most of the other markers have negative overtones, such as "slackers," "latch-key generation," "MTV generation," and "baby busters." Many members of this generation reject these labels for they not only stigmatize and stereotype, but also reinforce the negative behavior they describe (Isaksen 2002: web).

The Eloi culture are then associated with the slacker mass culture and with sundry countercultural movements such as the Hippie, Punk, Skateboard and Videogame subcultures. It is not strange that "the cultural commentator Gordon P. Clarkson has referred to shallow, fruitless and repetitive culture as 'Eloi culture,' because he claims that it is "creating a society of unthinking passive consumers of 'meaningless trivia'" (Turlington 2010: web).

In *Queen of Angels* an inverse correlation between the loss of consciousness and the increase in money-related comfort depicts the struggle between conscious individuals such as Goldsmith's clique and the anonymous multitudes that amass ridiculously large fortunes yet who lack the ideas about their profitable uses of them: "consequently the Handed [Top model type of actors] were by and large rich enough and with sufficient leisure time to do whatever they chose whether it was ramp up into Eloi status and play endless law yabber with pd and courts or engage in experimental politics" (137). Nevertheless, as described in this excerpt, these are the people who make the crucial decisions for the nation and who control the functioning of the

corporate apparatus, taking advantage of the fact that the more tawdry the product they sell, the more likely it becomes a success.

In Wells' novel, the plentiful comfort enjoyed by the pretentious forbears of the Eloi is directly responsible for the degeneration of their now fragile and rickety bodies. Likewise, in Bear's work the excessive use of comfort and the lack of physical activity aims at the future degeneration of the Eloi's physique and psyche insofar as they persistently ignore the Roman maxim '*Mens sana in corpore sano*'. Nevertheless, a substantial difference with Wells' novel is perhaps the absence of a working class; physical tasks are automatized which reduces the 'degenerative' power that nature exerts over humans. In *Queen of Angels* "there is no working class. Nanotechnology, billions of microscopic, self-replicating factories, makes anything from pistols to buildings. Robots called *arbeiters* do all the service work. Bear gives no clear idea of what everyone does if they do not have a government job" (Blatchford 1994: 61). Thus, in Bear's novel the whole of humankind seems to head toward the deterioration of their physiques if it weren't for the influence of nanotech and/or vanity, both of which constitute the core of the fantasies and policies of the Eloi and other elite members: "You're not augmented. If you ran with us and didn't waste your time with pd you could change whatever you wanted. Anything" (Bear 1991: 138). Like in *The Diamond Age*, nanotech and the automatization of labors also stand as the panacea to overcome physical encumbrances and to achieve the greatest amount of comfort. By making use of nanotech in order to shift into any desired form, the Eloi's godly attitude exposes the arrogance of the higher classes, all of whom indulge in paltry pleasures and body-culture, while, in contrast, the lower strata, the few ones who perform physical labor, are pictured as robots or uncritical automated laborers.

In this regard, unlike *Neuromancer* and *The Diamond Age*'s depictions of prostitution as the ultimate fantasy about bodily control by dominating the mind, in *Queen of Angels* prostitution is related to robotic behavior and to automatized labor, either in the field of sex or in reference to physical work and social stratification. Sex itself is then associated with robotized work, and the people who perform it are degraded to a similar level: "a store [...] rented booths containing sexually capable arbeiter⁶⁰ called fappers or prosthetutes" (204). Correspondingly, automatized labor is devalued to the rank of prostitution, and defined as an unwanted series of tasks which nonetheless produces a copious and instant remuneration. Robots are then portrayed as prostitutes as well, commerce and labor are equaled to mechanization, ("an automated convenience store [had] small delivery carts rumbling in and out of the slaved commercial traffic lanes" (204)), while the human body is visualized as a machine open to manipulation and enhanced like an appliance.

Bear's setting then is that of a postcapitalistic society *alla* Toffler where not only white-collar jobs have become more abundant than blue-collar labor or any other type, but where those represent the only occupations available, especially for the therapied ones. Bear's social structures even allow people to have significant amounts of free time so as to become Eloi, for, as Toffler explains, "Third Wave white-collar work, like Third Wave manufacturing, will not require 100 percent of the work force to be concentrated in the workshop" (1981: 160).

This hypertechnologized environment becomes, on the one hand, an attraction for those with technophilia and thanatophobia (or gerontophobia), but, on the other hand, it arouses a threatening angst for those with technophobia, not only in regard to the displacement of human labor in favor of robotized work but in that relationships

⁶⁰ Arbeiter: robots, as noted.

and lifestyles (including knowledge and arts) become mechanized and standardized. As in *Permutation City*, the constant aversion to technological singularity prompts diverse characters to think of the future as a possible ‘technological dark age’ in which not only self-replicating technology would dictate the status quo, taking us farther away from nature, but in which machines will create a standardized popular-culture and an undifferentiated mass of people who craves for automatized craftworks rather than original creations.

This dilemma is no longer part of science fiction. With computer technology the arts solved numerous technical problems and experienced a significant quality leap. Computer technology has been an indispensable tool for the evolution of the arts. Many art forms benefited from computers, and novel expressions were invented. Nonetheless, on the other hand, computer technology has also institutionalized and standardized the output of every form of art, making it impersonal, unoriginal and trite, as it occurs with electronic music, digital film-making, graphic arts and all forms of digital art. The real threat of computer technology in regard to arts and daily life, more than the standardization of forms and ideologies, is a vicious circle whose point of start is the ravenous consumption of shallow ‘art’, followed by boredom and the disposal of those conventional and stereotyped artisanal works. ‘Art’ consumers then become interested only in crude and sordid expressions that foster the appetite for more aberrant and trivial displays of spurious art. This is a common mechanism of TV and the Internet, both of which focus on grotesque and shallow manifestations of ‘entertainment’ rather than on original and creative forms of art.

In this regard, Bear sees naturalism and humanism as the source of originality, and philosophy and spirituality as the counterpart of consumerism and triviality. In *Queen of Angels*, a group of underground artists, preoccupied with the

expansion of trivial art, advocate the reconnection between man and nature, spirit and evolution, and technology and humanities. Their affinity for the natural (corroborated by their aversion toward therapy) and their eagerness for creativeness are both visualized as the solution to ideological standardization. Bear then implies that the creative spirit should be cleansed and purged, for which a mental ‘spa’, a retreat for the body and the mind, is suggested as the cure against the restraining atavisms that hinder culture and creativity. As Reginald and Francine Killian founders of the Pure Land Spirit Purification Center state:

“We’ve had a number of intellectuals and celebrities come through our center. They come to purge themselves with balanced natural vegetarian diet, mineral water. They come to listen to music, all preclassical, all played on period instruments. They come for the big sky and the stars at night. And we counsel them. We help them fit into the twenty first century, not an easy thing to do, *everything is so antihuman, unnatural, technological*. Emanuel Goldsmith came here and stayed for a year” (114, my emphasis).

Goldsmith then personifies the struggle between creative humanism and the trivial views of the Eloi, whereas his creativeness and sensitivity represents the antithesis of standardization and industrialism. In this sense, *Queen of Angels* describes a cyberpunk setting notorious for the absence of spiritual strength, legitimate information and critical vision. The fact that a murder constitutes the plot’s central issue makes a constant reference to the fall of man, the dark age that hounds human civilization in a cyclic manner; the novel thus alludes to an inevitable return to social depression and subjugation despite the presence of technology. Goldsmith, engaged in the Adornian quest to revert those lowbrow ideologies, advocates for humanism and intellectualism, and denounces the possibility of a new fall of man, now kindled by technology: “He thought we’d fail and fall back into a horrible technological dark age. Ignorance, philistinism, but technology rampant” (122).

On the other end, along with his wealthy friend Albigoni, Goldsmith seemingly represents a supporter of intellectual Fordism⁶¹ in that he suggests that people would approach finer forms of art by stimulating them with ever better works. In this way, he prompts for the inception of a virtuous circle by which the dilettantes will produce a more intense appetite for knowledge as long as their cognitive capabilities are enhanced by the contact with quality creations: “[Albigoni] doesn’t want to grind a jackboot into humanity’s face. He’d rather make them smart and stable and happy. Smart stable happy people rent his books and LitVids” (74).

In this manner, unlike classic cyberpunk, Bear endorses the homeostatic equilibrium between social structures and technology as the basis of a modern facet of humanism: “a social system is kept in balance by competing forces, the initiative of the individual as opposed to the restraints of the society as a whole” (267). His vision focuses on the technological benefits required to produce a more expressive art and a stronger knowledge, whereas his progressionist credos constitute a contrast with cyberpunk’s pessimism. Like many other aspects overlooked by cyberpunk, Bear’s humanism constitutes one of the elements that most strongly contrast with the murky, dehumanized settings of this genre. Instead, Bear proposes new paradigms and models to the interrelation of technology and arts, and proof of this evolution lies in the poetic style that suffuses the diegesis of novel.

⁶¹ Fordist policies suggests that workers should earn a generous wage so as to be able to buy the products of the company he is working for: “Just as Henry Ford (hence ‘Fordism’) opined in 1914, the virtuous circle of American Fordism tied higher wages for the ‘core’ of unionized industrial workers to their acceptance of management’s incessant demands for increased productivity. As these workers began to earn higher wages (due to successful contract negotiations and overall productivity gains in the industrial economy), they began to increase their consumption of the vast array of consumer goods made available in the postwar years—including everything from the automobile to the suburban home filled with ‘modern’ appliances” (Gibson 2004: 18).

III.1.2 Authoritarianism and social determination: syncretic mythologies, practopias and economical uprising as the dictatorial methods of Hispaniola

The blend of cultures in Hispaniola, an allegorical postmodern merge of socio-political ideologies, represents, in *Queen of Angels*, a unique syncretism that, on the one hand, retains a link with the cosmopolitan world of cyberpunk and, on the other, makes a reference to the risks of globalization. In addition, Hispaniola's political status resembles the current politico-economical relationship between the United States and Cuba. At large scale, Hispaniola's dissidence and rejection of mainstream dominion represents what Goldsmith's clique embodies at small scale; its underground ideologies repudiate both hypertechnology and the loss of spiritual culture. Like the 1920's 'Five-Year Plans' of the Soviet Union, Hispaniola, under Yardley's regime, developed a strong national strategy of economic recovery that, although based on strict social measures, has accomplished significant goals in the restructuring of the country.

Hispaniola's dissidence toward American policies produces a latent rupture in the relations between both nations; yet, by the end of the novel, this feud becomes blatant and overt, due to the belligerent posture of the US against the island. As part of the early latent hostility, an economic blockade is established, and the period of tacit animosity between both, perhaps a remembrance of the Cold War, is followed by a dissimulated campaign by which the island smuggles its merchandise and the US restricts Hispaniola's external economy, as expressed by an American governmental agent: "Yardley keeps pushing his imports...We keep blocking them. Spike fence" (45). American smugglings from Hispaniola, the illegal and antihuman 'hellcrowns', constitute the major symptom of what postcyberpunk recognizes as a double standard

insofar as, on the one hand, governments make use of benign technology to ameliorate the status quo while, on the other, with the lack of viable options, these regimes employ desperate resorts to keep the population appeased.

Yardley remains the embodiment of the classic Latin American dictator who, in the first place, promotes general welfare by means of diverse populist programs and, subsequently, turns into a despotic autocrat whose *raison d'état* are only regulated by his own liberty to oppress the masses at will and regulate the destiny of millions. In this manner, Yardley embodies a blend of the political ideologies and methods of control of a black despot like Duvalier with the posture of a white dictator like Castro, more inclined to forge a strong state by means of public assistance and widespread education. The result is an allegory that associates technology and education with the 'whitening' of the island, inasmuch as education and technology are linked with a European vision based on a domineering technology: "He taught us to live in this century, and to please our visitors who brought more money. He taught us to be concerned with comfort and medicine and machines. That is how he made Hispaniola white. Now the people they pay lip to the gods but they do not feel them, they do not need them, they have white money and that is better" (141). Like Castro, Yardley indoctrinates the islanders to stimulate tourism in a veiled manner and to the 'sell' natural attractions as an economical resource, and, in this way, he emphasizes the need for a solid economic infrastructure, all of which suggests a similitude with the socialist system of Cuba or the exploitative policies of the Dominican republic and Haiti.

Whereas Yardley's white facet (he is a white British, as mentioned) is related to consciousness, rationalism, education and technology, his black side is actually related to brutality, draconian measures and superstition. Although he projects a black

personality by assuming diverse roles and looking after popular issues, he remains irrevocably white by, on the one hand, fostering traditional black values such as voodoo beliefs and the syncretic catholic religion, and, on the other, paying especial interest to technology, rationalistic education and economy. At a certain point, he turns into the personification of Baron Samedi, a syncretic deity who has connections with several old and recent Haitian legends⁶². Samedi, as a god related to death, sexuality and debauchery, is in charge, among other tasks, of making sure that the corpse of a dead person rots in the ground so as to prevent its soul from being brought back as a brainless zombie. Moreover, “Baron Samedi is the last resort against magic, because even if a spell should bring a person to the point of death, he can refuse to ‘dig the grave’, meaning the person cannot die” (Clammer 2008: 283). Likewise, Yardley, mirroring Duvalier’s techniques, absorbs Samedi’s image and attempts to keep socio-economic death away from the island by fusing himself with Haiti’s pantheon, and, although never mentioned, it is implied that he uses this mythical role to impose fear and control on the population. In the same manner as “Duvalier [who] was infamous for taking on the guise of Baron Samedi, a persona which helped the tyrant oppress the rural populace of the island” (Oswald 2009: 22), Yardley apparently makes use of zombie culture, scary images and terror to manipulate massive thought and impose his ambivalent culture. Like Duvalier, Yardley can control the living by controlling the dead; the zombie figure utilized in the 1960’s to manipulate the population, has apparently been used by Yardley in his Baron Samedi personification, yet with ineffective results perhaps due to the evolution of the island’s collective unconscious which now rejects such naïve methods.

⁶² Baron Samedi is the voodoo deity that, among other functions, decides who dies and who does not. Duvalier himself impersonated this deity in order to become more frightening among his own people.

Yet, Yardley's reign of fear fails and he is forced to resort to his 'white' methods and, more accordingly to the novel's futuristic setting, he makes use of technology and not oppression to reconstruct the country from the recent past social upheavals and hyperinflation, as one of Yardley's assistants mentions: "The faith is weak, the shrines ignored; like all the others, Yardley he plays at being Baron Samedi, but he is not. We thought he was a noir blanc, black white man, black in his guts, but he is a blanc de blanc, white clear through, and now Hispaniola is blanc" (140). By "all the others", the narration implies that not only Duvalier's procedures were unsuccessful, but that the old dictatorial schools are deficient as well. Thus, Hispaniola's syncretic nature constitutes the perfect battlefield where the black culture, represented by voodoo mythology, magic, unsophistication and superstition, struggles against white traditions that include rationality and technology. Hence, although Yardley makes a strenuous effort to understand and assimilate the island's blackness, his white rational mind takes over and represses his attempts to figure as a divinity for his people. Yardley trusts in education, in technology and, as we will see later, in free-will to buttress the island's progress.

On the other hand, Yardley's 'black' side is accentuated by the fact that the country exports technology that the United States refuses to manufacture but which hypocritically uses against its seditious citizens: the 'hellcrowns'. It is not cultural capital, then, what is exported out of Hispaniola, but oppressive technologies that the majority of the rulers around the globe utilize as a swift resort to tyrannize the masses. These methods, like rubber bullets, water cannons, tear gas and police force, allegorize a series of brutal stratagems that every nation employs, either with valid reasons or not, against allegedly uncontrollable mobs. Hispaniola, as the cultural blend it represents, exports a set of white technologies imbued with the black spirit

associated with the real-life Duvalier and the voodoo deity Baron Samedi.

Besides the fear derived from zombie culture, Yardley emulates Duvalier's security structures and institutional violence in order to rebuild the island's socio-economic stability, and thus revives the Tonton Macoute brutal militia which, within this new regime, will be permeated with a tinge of sobriety and organization. Along with education, a healthy economy and technology, this intelligence corps will constitute one of the numerous stratagems that will 'straighten' the country, as Yardley's assistant explains:

[Yardley] uprighted the economy, he brought in work and factories, he made our youths into soldiers and gave our old people homes. He made the courts just and the *Uncles*—"

"The police," the large woman said.

"He made the *police into protectors of the islands*. He built resorts and made the beaches clean, and he rebuilt the palaces and made museums and even filled them with art. Who knew where the money came from? It came, and he fed the people. But he is not the same now. He does not get the commissions now. The world, they are on to him now (142, my emphasis).

The 'Uncles', as the Tonton Macoute were known, embody a reference to the children's horror popular tale about the character known as 'Uncle Gunnysack', and thus represent a juvenile manner to scare 'grownups'. Nevertheless, what this modern myth represents, especially in Bear's narrative, is a macabre method to reach into the person's innermost and most vulnerable side, the precise effect Alfred Hitchcock attempted to create by his famous knife-and-shower scene, which produces a profound psychological torture that affects people in a more effective manner than physical violence.

The Uncles form part of the set of exports that Hispaniola ships surreptitiously into the United States. The Uncles are to the island what the Selectors are for the mainland. The latter, depicted as anonymous, poker-faced, ruthless Agents (in the guise of *The Matrix's* Agents), make use of the illegal 'hellcrowns' to oppress US

citizens and mold them into meek creatures without the need of an expensive and elaborated ‘therapy’: “Yardley has been accused of manufacturing and exporting insidious torture devices, mind invading pain machines used by, among others, the Selectors that haunt us all. Never mind that our own President Raphkind has established open links with Hispaniola and Yardley; never mind that ours is an age of correction’ and ‘maturation,’ and that many admire the actions of both the Selectors and Colonel Sir John Yardley” (114).

The Selectors, like their Haitian counterparts, the Uncles, represent the most radical example of cyberpunk within Bear’s narrative, whereas their cybernetic devices resemble the excruciating pervasive technologies of narratives from the 1980’s. While cyberpunk provided us with multiple examples of pervasive technology such as the narcotic-bypass embedded in the liver of Case, *Neuromancer’s* protagonist, which controls his drug-addiction, Bear’s novel present us with an oppressive system that utilizes fear and Pavlovian conditioning in order to subdue swiftly and ruthlessly the entire existence of the subject. Nevertheless, Bear, a truly postcyberpunk writer, interlaces such murky traits from cyberpunk with constructive, favorable designs intended to ameliorate the lifestyle of the community, such as the so-called ‘therapy’ which, although controversial due to the social determinism and the reduction of liberty associated with it, is actually a complex apparatus that involves harmful effects along with beneficial results. All these instances, the ‘therapy’, the educational systems, the growing economy and the regulating institutions, resemble the utopian narratives of early SF rather than the pessimistic views of cyberpunk. Hence, as we can notice, “when the human is inserted into the utopian system, the result is a feedback loop, in which the system encourages the ‘best’ part and controls the ‘worst’ part of human nature, while the human, in return,

maintains the system with material, energy, information, flesh, and spirit” (Porush 1992: 55).

Like Fidel Castro, Yardley pays special attention to education as one of the main formants of the infrastructure of his newly formed country. The strategy used by Yardley clearly reminds us of the Cuban stratagems during the cold war when Cuban intellectuals were educated in the USSR and later returned to the island to diffuse their acquired knowledge. In this fashion, a strong educational program has turned Yardley’s country into a humanist haven to which even foreign students recur to obtain a professional education, as explained by Yardley’s assistant: “But what lies in the future? In the past our children wandered around the globe seeking education, and now we accept students who travel here to be educated” (222). Nevertheless, not even Yardley’s economic system, nor his educational vision or social improvements, truly constitutes a utopia. In the first place, a utopia is likely to represent a dystopia for others (e.g. capitalistic utopias are regarded as dystopias by the communists and vice versa), and, in the second, a true utopia is that which achieves a radical and entire equality and justice for all. Nevertheless, Hispaniola’s composite and heterogeneous constitution represents the main obstacle for the creation of such ‘perfect’ environments. What we have, instead, is what Toffler calls a ‘practopia’, a likely-to-exist system that fosters welfare and social stability but which is not free from the unavoidable hindrances that any compound society eventually faces:

Unlike a Utopia, a practopia is not free of disease, political nastiness, and bad manners. Unlike most Utopias, it is not static or frozen in unreal perfection. Nor is it reversionary, modeling itself on some imagined ideal of the past. Conversely, a practopia does not embody the crystalized evil of a Utopia turned inside out. It is not ruthlessly antidemocratic. It is not inherently militarist. It does not reduce its citizens to faceless uniformity. It does not destroy its neighbors and degrade its environment.

In short, a practopia offers a positive, even a revolutionary alternative, yet lies within the range of the realistically attainable [... and] makes allowance for individual difference, and embraces (rather than suppresses) racial, regional, religious, and sub-cultural variety (Toffler 1981: 358).

Yardley's refusal to force his citizens into therapy represents perhaps the best example of how the individual is safeguarded as such, and that free-will and self-consciousness succeed as the result of his educational plan and as the basis for his uninhibited 'practopia'. Yardley's use of religion to gain political control of the island is quickly left behind and the novel seems to underscore the fact that it was by means of his socio-cultural stratagems that the country became such a strong bastion and an outstanding practopia. Thought control, for instance, could have never been part of a true utopia, whereas, on the other hand, it could actually take place in a dystopia disguised as a paradise such as *Logan's Run* (1976) and *Brave New World* (1932). In this regard, Yardley seems quite comfortable with the amount of thought control used by his institutions while, at the same time, he shuns away radical and definite modes of control such as the 'therapy'. For Yardley, Pavlovian conditioning and the reward-vs-punishment system seem to suffice as controlling methods insofar as his intention is to construct a free country entirely based on self-awareness and freedom of action, as we read in this dialogue between Mary Choy and Soulavier, Yardley's assistant:

"Vodoun is not widely practiced now. Not by my generation. But there is belief, and there is culture... If they become the horses of bad gods it is the individual's fault, too. You do them a favor by punishment. You alert their souls to error."
[Said Soulavier.]

"That sounds like the Spanish Inquisition," [Mary Choy] said. Soulavier shrugged.

"Colonel Sir is not a cruel man. He *does not impose punishment on his people. He lets them choose in their own courts.* We have a just system, but punishment not therapy is part of it. You cannot change a man's soul. That is white man's illusion. Perhaps in the United States you have lost the truth of these things" (256, emphasis added).

Behavioral issues then seem to be Bear's narrative's main agenda. He succeeds then in presenting two different approaches to the subject: one, represented by the odd socialized programs that, in the novel, exists in the United States and which provokes

a massive homogenization of cultural structures and ideologies, the other, associated with the description of educational rigor and self-awareness as the main method to achieve social steadiness and economic evolution.

Yardley's policies allow his government to be formed out of institutional freedom (later translated into social freedom), the main element in the construction of a healthy community. In this regard, Hispaniola's political posture contrasts entirely with that of the United States, a country where a strange type of dystopian socialism based on control and radical capitalism dictates the prevailing ideologies and the course of events. It is against this kind of authoritarianism that Goldsmith reacts, and the main reason why he feels free and unencumbered when he is invited to participate in the island's socio-cultural system as an adviser. Whereas Yardley and Goldsmith represent the outer agents, the beneficial medium that will propel the island's progress, Mary Choy and the Selectors become the representatives of the United States' repressive methods. Both, Choy and the Selectors, personify coercive institutional forces; while the former represents a legal and organized institution, the latter are described as unlawful and intimidating. Nevertheless, although these agents form part of the official power, they are also depicted as lacking self-determination and as part of a mechanized political apparatus. "Superficially Choy might seem an appropriate cyberpunk heroine (such as Gibson's Molly/Sally) but as a policewoman she is part of the ruling system" (Blatchford 1994: 59). It is only when Choy travels to the island that her beliefs are confronted by an entire system that criticizes her passivity in regard to freedom and self-determination:

Mary clenched her teeth to control a chill. "I'd like to know what I'm getting myself into."

"You get yourself into nothing," Soulavier said. "Your bosses get you into things. You are a lackey. Do Americans still use that word?" He glanced at her in imperious query, nose raised. "You have no control over your fate. Nor do I. You have made your commitments as have I. You follow your path. As do I" (302).

The US fierce methods of social control used by the Selectors or the implementation of institutionalized therapy both constitute an inheritance from the then still active cyberpunk movement in Bear's novel. These classic traits, social determinism and cybernetic control, are, nevertheless, juxtaposed with the postcyberpunk stance of *Queen of Angels* represented by Yardley and Goldsmith's thirst for freedom, education and progress. However, liberty stands as an important element of the balance within the composite social structure of the novel, as it is clear that a necessary degree of restriction and coercion is needed in order to come to terms with the general needs of the population. In this manner, and contrary to Blatchford's opinion (quoted below), Bear leads his characters to an ideological battleground where diverse philosophies and the efficiency of different socio-political systems are examined. In this manner, while provoking a response from the reader (or from his characters), Bear refuses to take sides or predispose the actions toward a specific posture:

However, *Bear seems uninterested in encouraging critical perspectives*. He seems unaware that there is anything wrong with joblessness or thought control; his characters do not even know that the underclass is alive. This seems to suggest that his concern is not with the peripheries of society (as cyberpunk is) but with the stable core of a community, including conservative forces like the police. Bear's technical imagery draws on similar anticipations about the future to those which cyberpunk relies on, *but seems to approach that future with a very different agenda* (Blatchford 1994: 61, my italics).

It stills sounds incredible to read a statement such as "Bear seems uninterested in encouraging critical perspectives", especially when, by the end of the quote, we discover that Bear steps away from cyberpunk to scrutinize these phenomena with a new perspective. Bear's novel views (all anti-Manichaeian, confronting, uncompromising and edifying) derive from a critical examination on the drawbacks and benefits of the social systems he describes. In this case, the complex and

complementary socio-political apparatus embodied by the United States and Hispaniola represents a composite, rich, beneficial and detrimental setting all at once; these systems are described by Bear as incomprehensible and ungovernable, and full with contributions to the social and threats to the individual.

Finally, Bear approaches the conflict between the United States and Hispaniola to examine diverse governmental postures and policies, some of which employ classic methods of control such as the use of popular mythologies and legends to propitiate a type of reign of terror and other brutal procedures that tamper with the psychology of the general population (the clamp, the Uncles). The policies described by Bear in regard to Hispaniola also aim at the construction of what Toffler calls a 'practopia', a socialized and beneficial socio-political arrangement in which technology and a strong governmental program can refuel the economy and build powerful health and educational systems. The governments of both, the US and Hispaniola face, however, a typical problem in regard to the control of great masses and, for this, they also make use of harsh, sometimes antihuman methods that bring about a certain degree of balance.

III.1.3 The democratized propagation of information: control, freedom and political agendas in *The Fortunate Fall* and *Transmetropolitan*.

The dystopian facet of *Queen of Angels* includes descriptions of psychological methods of dominion and thought control, a resemblance of *1984*, a novel in which brainwashing and psychological violence (and not physical purge) constitute the central premises. Bear, thus, examines diverse psychological ‘punitive’ and corrective techniques and refuses to consider physical prisons as the solution to the violence and social malaise of the settings he describes. Bear’s examinations of the forms of governmental control, the manipulation of information and other forms of oppression are also approached by other postcyberpunk works that provide new scopes on the use of computer networks to build democratized and subversive means to diffuse information within hypertechnologized, cybernetic or dystopian societies.

In this regard, Raphael Carter’s 1996 novel *The Fortunate Fall* as well as Warren Ellis and Darrick Robertson’s graphic novels *Transmetropolitan* (1997-2002) coincide in questioning the issues that concern the diffusion, control and democratization of public information, and both succeed in presenting a setting in which hypertechnologized means of communication play a decisive role in the generation of awareness among the general population. Carter, for instance, focuses on a cybernetic augmented reporter, Maya Andreyeva, whose memories have been partially obliterated and whose enhancements allow her to perform an unusual mode of hyperreal journalism known as ‘telepresence’. This enables her to transmit not only her direct experiences to a large audience, but also her emotions, perceptions and sensations, a holistic transferral of information and data that millions embrace as part of a remote reality.

Carter's protagonist broadcasts in real time her investigations and experiences, concentrating on a relatively recent massacre and the liberation of Russia from the Guardian regimes, for which she is assigned the task to interview Voskresenye, a survivor and witness of the pogrom of the Unanimous Army, a subversive group that liberated the country from the despotic power of the Guardians. In a similar way to the use of a dolphin in the film *Johnny Mnemonic*, a whale's brain is used as an AI haven and as the receptacle for the massacre's digital documentation, all of which is plugged into the Net, a cyberspace also known as 'grayspace'.

In Carter's setting, two enforcement units are responsible for maintaining the social welfare by different means. On the one hand, the Postcops constitute a group of enhanced and ultracontrolled PDs with brain chips that prevent them to brutalize criminals or to burst in rage. They represent the diplomatic and humane forces that, by means of rationales and negotiations, settle civil disputes. On the other hand, the Weavers are a group of special agents who, by means of advanced computer technology and nanotech, modify the conduct of unusually violent felons or other minor pariahs. Furthermore, they produce viruses capable of manipulating people's behavior against their will. It is against these factions that Maya Andreyeva struggles in order to uncover the truth about the genocide and the nature of the current governmental control. This backdrop bears a resemblance with Bear's control enforcement, but Carter goes infinitely beyond in the description of ruthless methods of oppression. Although both Bear and Carter insinuate the possibility of nanotechnological mind pervasion, the former contents himself with the modification of external behavior, while the latter describes the extraction of brain data that is subsequently manipulated or misused and sometimes reloaded it back into the person's mind. Like Bear, Carter's view on intrusive moistware aims, on the one

hand, at the institution of homogenized social criteria and ideologies, and, on the other, at the exploration and the construction of a mega collective mind based on a democratized diffusion of information:

The body modification of sockets – which allow Maya to work as a camera, and allow her viewers to access her feelings and experiences over the Net – means that the mind as well as the body can be disciplined into models that are deemed appropriate. Suppressor chips ensure that even one’s thoughts and bodily desires can be examined and moulded by hegemonic ideology (Vint 2007: 130).

Carter’s depiction of the interrelation of cyborgs and the Net attempts to describe a type of panopticon that works not only as a method of surveillance from the exterior of a person, but as the inspection of the subjective interior. In this regard, the ‘grayscale’ (and the agents that control it) constitutes a system capable of extracting information from a person by manipulating his cybernetic interface in order to obtain statistical information. Moreover, the agents make use of such technologies to mold or homogenize a person’s thinking, or as a manipulative tool. In this sense, Carter’s descriptions of computer networks as cybernetic control endorse the fact that “today’s ‘circuits of communication’ and the databases they generate constitute a Superpanopticon, a system of surveillance without walls, windows, towers or guards” (Poster, 1990: 93).

Whereas cyberspace has been traditionally regarded as both a place of democratic interaction and a field of homogenous ideologies and oppression, Carter’s Net contradicts the fact that, by means of cybernetic and mental skills, a hacker can undermine the power of a corporation or government and defeat it in their own grounds. Carter’s narrative refuses to regard cyberspace solely as a financial field or as the classic Hollywood chronotope in which an individual can overcome the abstruse powers that determine him. “Another anti-cyberpunk motif in Carter’s novel,” Sherryl Vint writes, “is his refusal to represent cyberspace as a ‘leveling’ field

in which those excluded from positions of power in the material world can confront the powerful and emerge victorious because of their talents in negotiating cyberspace” (2007: 128).

Nevertheless, the democratic facet of Carter’s peculiar cyberspace lies on the efficient diffusion of information, and, especially, on the enhancement of people’s worldview, their perception and sensoria as well as their will to power based on the generation of knowledge. In the same guise as *The Lawnmower Man* in which, by means of a corrective cybernetic simulator, a handicapped man awakens and develops his dormant preternatural powers, the so-called ‘telepresence’ in Carter’s narrative represents a medium for people to develop a new sense of perception. By means of the paradoxically distant presence of the viewers of telepresence, these people develop a sixth intuitive sense that amounts to the sum of sensorial and its processing in a brand new faculty that resembles a type of telepathy or extrasensory perception, a mental enhancement similar to that generated by our modern information societies: “‘But telepresence,’ [Voskresenye] continued, ‘is life, except in one respect: it adds a sixth sense, the telepathic, which exists nowhere else. When telepresence is switched off, you are imprisoned again in your eyes and your ears; the intimacy of mind touching mind is gone” (Carter 1996: 231).

Thus, more than a telepathic new sense which actually contradicts the scientific spirit, what Carter seems to underline is the advantage created by the presence of a confronting and enlightening distant ‘other’ and the fusion of the data the individuals carry as a personal distinction, thus blurring the boundaries of the self and mingling it with a community that dispenses with egocentric or narcissistic behaviors. *The Fortunate Fall* then roots for the birth of a global consciousness, which, contrary to Sheryl Vint’s description of Carter’s cyberspace as anti-egalitarian,

constitutes another democratized field derived from the vast flux of information, a new view that identifies the Net with a type of platonic heaven that opposes cyberpunk's depiction of the matrix as a imprisoning disembodied reflection of the material world.

Maya's skills as a journalist and her cybernetic enhancements allow her to overcome certain social and legal barriers and explore different social strata by merging with them. Unlike Woody Allen's chameleonic character Zelig in the eponymous film (1983), Maya does not relinquish her personality in order to be accepted or go unnoticed; she rather acquires the necessary skills to mingle with other people. In this regard, Maya mirrors *Transmetropolitan's* antihero, Spider Jerusalem, whose ability to pervade diverse low-life and jet-set ranks enables him to wring and challenge their ideologies at the same time. Unlike other tough insensitive cyberpunk characters inoculated against and by postmodern life, Jerusalem presents both personalities, the eccentric and explosive on the one hand, and the paranoid and fragile on the other. Embodying the outrage of modern times, Jerusalem is forced to seclude himself into a self-defensive hideout in which high doses of alcohol, drugs and television abound. Yet, his sensibility, his special insight and the urban environment all compel him into becoming a complex postcyberpunk character who, on the one end, indulges in self-effacing vices, a true reflection of cyberpunk, and on the other, develops a social consciousness that requests civil participation in denouncing corporations and governments insofar as "the City's extremes are also the only stimulants powerful enough to fuel his writing. Spider is a postmodern *flâneur*, restlessly wandering the City's street in search of a story. He generally finds more than he has bargained for" (Shaviro 2003: 76).

More than a chameleon, Jerusalem's traits enable him to wander into diverse postmodern settings without being noticed. He is capable of either paying a visit to the president or interviewing the 'transient' leader whose DNA has been spliced with alien genes to create an enhanced mutant version of humankind. As Sarah Highley affirms, these characters can become invisible spectators to alien worlds by mingling and camouflaging, and learn by direct contact with defamiliarized atmospheres and social circles. Yet, their camouflage does not consist in garments, disguises and attires but in a postmodern attitude which results from the kaleidoscopic information that a subject acquires. Thus, as Highley declares, "if George Sand can become the *flâneur* by cross-dressing, making herself an invisible observer of city life, then I suggest that certain spectators, regardless of gender, are in the position of 'cross-classing,' as it were. By shrinking invisibly into the inner city they become safe, invisible observers of this alien world" (2001: 22).

Maya's *flâneur* qualities, on the other hand, enable her to do more than just learn. She makes use of her broadcasting power to manipulate the multitude's consciousness and to evade the oppressive, overbearing power of the institutions that represent corporate power. Moreover, Maya's *flâneurism* is entirely derived from her cyber-grafts and thus the resistance she exerts against the Selectors and Postcops, both a product of cybernetic methods of dominion, derive directly from cyberspace culture. The technocracies against whom Maya struggles are constructed from the same substance than cyberspace (financial and surveillance data), and thus they must be confronted with similar weapons. Maya, whose name is associated with illusion and deception, utilizes cybernetic means to counter the delusive effects of control of these cybernetic institutions. After all, the virtual, according to what we learn from Maya, is a scion and a copy of the material world, and thus material entities can be fought with

cybernetic methods in a more effective manner. In this manner, the social and the material, although separated, both converge in the virtual, allowing us to learn from the material world by means of simulations or manipulate the social by methods such as the diffusion of information and broadcasting. On the other hand, “Carter [...] forces readers to acknowledge that disciplinary forces of social control are at work in the cyber-world as much as they are in the material world, [thus] refuting fantasies that suggest that one can escape one’s social position by creating a new one in cyberspace” (Vint 2007: 134).

Nevertheless, Maya and Jerusalem, both a product of a cybernetic era, make use of their mimetic capabilities to perform their most significant task, the diffusion of a blend of objective and subjective data collected by infiltrating in diverse circles. Both make reference to what Hunter S. Thompson defined as ‘Gonzo journalism’⁶³ and the fact that Jerusalem shares Thompson’s physical profile and festive lifestyle also underlines the inquisitive spirit that compels him to explore, in first person, what is to be part of other spheres:

Not only is Spider Jerusalem inspired by Thompson’s appearance, but his journalistic style is that of Thompson’s gonzo style. [...] Add to Spider’s expansive drug use and his first person writing style, and we have an archetypal gonzo journalist, a type found when the journalist merges his or her own personality with that of the subject matter, and thus erases the line of objectivity which is usually the hallmark of journalism (Christiansen 2009: 153).

More than erasing the line of objectivity, the type of Gonzo journalism that Jerusalem performs is inclined toward the immediate reaction of the readership assembled by anonymous and indolent people who usually belong to underground domains. These groups constantly indulge in recreational vices including synthetic drugs and kinky

⁶³ Gonzo Journalism basically refers to the journalist’s personal involvement in the event s/he is covering and the ‘first person’ form of writing with an irreverent and uncompromised point of view: “Gonzo requires virtually no re-writing, with the reporter and the quest for information as the focal point. Notes, snatches from other articles, transcribed interviews, verbatim telephone conversations, telegrams – these are all elements of a piece of gonzo journalism” (McKeen 1991: 36).

sex, and, although this lifestyle contrasts with the public ritzy image of politicians, *Transmetropolitan* actually depicts a confronting panorama in which statesmen (presidents included) revel in the same manner and with the same substances as the low-life. Jerusalem's contact with the leaders of underground organizations or the highest ranked politicians represents the capability of a subject to infiltrate restrictive settings by means of the variety of cultural elements that he garners within his personality and which enables him to mingle with a diversity of social groups. A postmodern character is then what opens the doors to a postmodern society.

Furthermore, the type of journalism performed by Jerusalem and Maya require precisely a postmodern individual who can dominate diverse situations, take advantage of them, and manipulate them to a desired point. In this manner, *Transmetropolitan* seems to endorse a flexible, critical stance led by a postmodern antihero which, in the long run, will become the hero that embodies the values and qualities of a postmodern society. In *Transmetropolitan* the postmodern thought is associated with political and futurological awareness and, especially, with public response inasmuch as "journalism is not about plans and spreadsheets. It's about human reaction and criminal enterprise" (Ellis 1997: 12). By "human reaction" the authors of these graphic novels endorse the blend of objective materiality and the perception of a critical subject all of which is transformed into digital information spread over a biocybernetic network in which the merge of subjectivism and objectivism will ultimately render a critical global mind or consciousness.

The responsible of this is interactive model is the postmodern Gonzo journalism that these characters perform, a set of information that pervades into the core of societies and which elicits a swift and critical response from individuals due to the nature of the propagating media. The information collected and projected through the

Net, according to the Actor-Network theory, constitutes a more powerful means of diffusion than the sole interconnection between flesh-and-blood individuals. The defamiliarized and crude situations that Jerusalem and Maya broadcast into the Net are capable of massive response (turmoils, demonstrations or even belligerent actions) against abusive institutions; in this way, they both embody the strong and shocking methods to expose the flaws and fallaciousness of doctrines and movements such as patriarchy, machismo or corruption: “Spider Jerusalem, a vitriolic celebrity reporter of a futuristic America *slaying new and old variants of human folly* in a war of words with nary a hint superheroics” (“The Essential...” 2008: 63, my italics).

Nonetheless, both *Transmetropolitan* and *The Fortunate Fall* focus their efforts on a postmodern paradox that, even within these postcyberpunk proposals, signals isolationism as a major problem derived from the massive spread of information. Both works seem to enhance the secluded plight of underground factions and telepresence (an informational web) viewers. Even when the reception of information by a massive group of people (through telepresence) appears to be identical for all, the subjective nature of perception and, especially, the isolated essence of the postmodern subject provoke an incongruous modern model of communication and a lame generation of critical perspectives, as Voskresenye, the witness to the pogrom, explains: “We are pulled toward cameras, but away from people that we know in our lives. Can you watch telepresence with your friend, your wife or your child? Not truly. [...] A theater full of people wearing headphones, all hearing the same thing, but separately. And so telepresence causes the triumph of the distant over the near” (230). Yet, Carter seldom refers solely to the isolated body but rather to an isolated subjectivity, and underlines the ontological loneliness of the human being (either postmodern or not, social or reclusive), accentuated by the fact that Maya ends up friendless, without part of her

memories and rejecting the love of her disembodied assistant Keishi.

Thus, the apparent solution to this radical subjective loneliness lies in a variant of the Gonzo journalism described both by Carter and *Transmetropolitan*, identified with the development of a holistic perception based not only on direct observation, but in communion with the object, with the ‘other’, with the space outside the individual, as Voskresenye mentions: “Don’t you see, it doesn’t matter if we look at them [stray people]! We must look *in* them! The Fusion will never be free until the cameras become dissidents or the dissidents become cameras. It is not enough to send out cameras to see and hear them; sight and sound are dying media—dying, if not dead already. We must *feel* them. We must know their thoughts. Who is missing, you ask me? *All of us are missing*” (237, italics in original). In this manner, Carter endorses the integration of perception into a new sensation that comprises the totality of our sensorium (to feel, in this case) and which includes the purported sixth sense that, more than plain telepathy, it stands for sum of our perception, distant or near, intelligible or incomprehensible, subjective and objective but which, after all, forms part of a global consciousness that spreads across human and cybernetic networks.

III.2 Identity, technological biopolitics and free will: the construction of the social and the individual mind in *Queen of Angels*

III.2.1 AI: the birth of self-awareness and identity.

One of the central issues in *Queen of Angels* is concerned with the actual definition of the ‘mind’, which, for Bear, will ultimately render the definition of identity, the self and/or the personality. For this, the novel pays special attention to a subplot that is apparently expendable or pointless and which is actually feeble, having plenty of unnecessary elements that have little to do with the diegesis. Nevertheless, as in all of his novels, Bear takes advantage of subplots and other figures as a recurrent technique to examine the most important controversies of these hypertechnologized societies he describes.

The subplot that Bear employs to attempt to define self-awareness and identity narrates the creation of an intelligent machine, but, contrary to those narratives in which the device runs amok or wreaks havoc, the contrivance described in *Queen of Angels* is quite innocuous in social terms. The effort of Atkins, the scientist who designs a sentient robot designed to explore space and to develop awareness, constitutes a simile of the strenuous effort made by God or the creator of this world (if it ever existed) to turn his creation into a conscious entity. This allegory implies the fact that this deity was compelled to examine his own consciousness in order to emulate it in an ‘artificially’ created being. Each of the scientists in *Queen of Angels* (all of whom represent deities of sorts, since they create and manipulate intelligence) must decipher the way to awaken a sense of self-awareness in the machines they create by first studying their own psyches. In this manner, these machines, ‘alien

others' as usual, constitute, through intensive introspection, mirrors that show humans what their true nature is.

Bear thus starts by defining an artificial mind as the sum of organic and mechanical elements, ("The AXIS 'mind' consists of a machine system and a biological system" (21)) while he associates the biological with the unfathomable 'magical' secrets of life in the universe. On the other hand, the mechanical component resembles the mechanical descriptions of life (as clockworks, locomotives, computers or a series of programs) as illustrated in the last chapter. The mind is regarded as a composite mechanism, the blend of a series of interconnected components performing specific tasks and an intangible abstruse element that explains its intelligence, adaptability, evolution and creativity.

The book illustrates a wide debate about the different conceptions of intelligence and awareness, some of them contradictory, some complementary. A group of scientists, for instance, attempts to settle the question about the definition of consciousness and the mind in order to simulate them in AIs, and venture to identify the mental traits that constitute the subject. They jump to conclusions and deduce that

there is no such thing as a unified human consciousness. There are primary routines which we call personalities, one of which usually makes up the conscious self, and they are partially integrated with other routines which [we] call subpersonalities, talents, or agents. These are actually limited versions of personalities, not complete; to be expressed, or put in control of the overall mind, they need to be brought forward and smoothly meshed with the primary personality, that is, what used to be called the consciousness, our foremost self (105).

The first conclusion derived from this passage aims at the fact that there are no unified set of traits that we can call 'the mind'; the second that the personality represents only a part of the unity identified as the mind. The psyche then is described as a steering device within the self insofar as it directs and controls the basic functions like basic defense and survival. The interactions of all the constituents of the mind are

then regarded as the source of every uncontrollable and erratic behavior, especially the conflict of the primary functions (survival) with the secondary ones in charge of petty desires and minor tasks. Thus, the initial premises of this group of scientist headed by Dr. Martin Burke recognizes no unified structure for the human mind and thus adopts an antipositivistic⁶⁴ view that opposes the rigidity of positivism, for which the social can be defined following strict formulas and axioms. The mind is depicted as flexible and, as following antipositivistic premises, no rigid formulas are found to explain its functioning: “antipositivist critics tend to speak as if the notion of a physicalist social science were a contradiction in terms with its supposed reductionism undercutting the distinctive explanatory dimension of social science” (Uebel 2007: 253).

Nevertheless, the debates aroused by Dr. Burke also recognize the presence and relevance of a certain unified structure within the individual mind which has a direct relationship with specific routines and subroutines followed problem solving. The recognition of intelligence, in Burke’s terms, is done “by tapping the mind at a level where the contents and structures are similar in all of us. The truly personal upper layers of the mind are not directly accessible, not right now, at any rate. The lower layers have different qualities, but they can be understood if we pass them through our own deep interpreters” (109). This does not, however, contradict Burke’s antipositivist view, but it does constitute the acknowledgement of a set of rules that establish the working basic elements of the mind. Other psychic functions remain

⁶⁴ Antipositivism claims that social phenomena are unpredictable and unstable and thus social sciences should not attempt to submit rigid formulas that explain mass behaviors: “Antipositivism is thus defined negatively in terms of its opposition to positivism as it relates to social theory. As in the discussion of positivism, the following attempts to separate matters of logic from matters of substance, bringing in the latter to illustrate the former” (Rhoads 1991: 40).

unique for each individual, unfathomable and uncontrollable. Thus, it is apparently the basic set of rules, the lowest structure of our intellect, what will provide the basis for the discerning of the qualities that will enable humans to construct and artificial intelligence.

In this respect, as opposed to traditional ‘wetware’ theories which equal the mind with a Central Processing Unit (CPU) and the body with hardware, in Bear’s novel the mind is also regarded as a decentralized unit whose main mechanism remains the feedback it obtains either from external referents or from its own realizations and deliberations. Thus, the acknowledgement of either extrinsic or self-motivated feedback, according to Bear’s view, constitutes the primary facet of life and the main mechanism by which the mind initializes the process of learning and, hence, of self-awareness: “The feedback loop is half the secret of existence. [...] There is no centralization [in self awareness]. A loop does not have a center” (127). From this we can infer that there might not exist a unique origin of self-realizing structures, but only an ever-growing spiral of knowledge that constantly reexamines the recently acquired data which is then integrated in accreting loops.

One idea that Hubert Dreyfus⁶⁵ and Bear’s *Queen of Angels* share is the incongruence between the ludicrously great amount of tasks that a computer can do and the absence of consciousness generated by those machines. We can deduce, then, that it is not the quantity of data and information, nor the amount of operations that a computer can perform but rather the assimilation of knowledge through experience and feedback, what has a direct relationship with the emergence of consciousness:

When we say artificial intelligence, of course what we mean is something that can fully imitate the human brain. We’ve long since had thinking systems that

⁶⁵ Hubert Dreyfus published two books that expose the failure of computers to generate consciousness or behave like humans: *What Computers Can't Do: A Critique of Artificial Reason* (1979) and *What Computers Still Can't Do: A Critique of Artificial Reason* (1992).

could far outstrip any of us in basic computation, memorizing, and for the past few decades, even in basic investigative and creative thinking, but until the design of AXIS and Jill, they were not versatile. In one way or another, these systems could not behave like human beings (Bear 1991: 129).

In the fantastic world of *Queen of Angels*, it is by means of the naïve concept of self-awareness that a fully-fledged artificial intelligence can be considered as such (“Self awareness is the most obvious indicator of whether we have in fact created full artificial intelligence” (129)), but for Dreyfus that is simply far from real. Although both Bear and Dreyfus define intelligence as a series of routines linked to decision-making, for the latter, artificial intelligence is a fantasy and a promise that perhaps can never be attained: “Despite predictions, press releases, films and warnings, artificial intelligence is a promise and not an accomplished fact” (Dreyfus 1992: 85). For Dreyfus, AI represents either a matchless tool for humans to develop their own skills or an instrument for the realization of automated tasks that involve a certain degree of problem-solving and interpretation; yet all this stands far from generating real intelligence:

The field of artificial intelligence has many divisions and subdivisions, but the most important work can be classified in four areas: game playing, language translating, problem solving, and pattern recognition. [...] My general thesis will be that the field of artificial intelligence exhibits a recurring pattern: early, dramatic success followed by sudden unexpected difficulties (Dreyfus 1979: xxxiii).

Nevertheless, Bear’s focus is not on an actual development of AI that could lead to a hypothetical and far-fetched singularity⁶⁶, but on an essay on what human identity, personality and self-awareness are built upon, all of this by means of a narrative about the creation of self-conscious machines. Thus, as mentioned, the discernment of the

⁶⁶ As noted, the ‘technological singularity’ implies that AIs will enter a virtuous circle in which intelligent machines could create self-replicating smart machines which, in turn, would engender new amazing machines until mankind is ousted from the technological scene.

traits that make a human intelligent would provide the key for the manufacturing of smart machines; the answer to this lies, according to Bear, in the amalgamation of intertextual diversity. In other words, identity, as the word itself implies ‘to be identical to’, is a product of networking and is then built from scratches of other people’s personalities, all imprinted in the consciousness of the self.

Bear also considers the diachronic problem of personal identity in regard to the continuity of consciousness. In this regard, John Locke was also concerned about the evolution of a person throughout time and how ‘equal’ the individual is to himself in different stages of his biological and psychic life. Thus, with the personal evolution of an individual through time, the pertinent questions about the continuity, cohesion and unification of a subject through time are answered by acknowledging the role of consciousness as the integrating factor: “As in this case it is the consciousness that goes along with the substance, when one part is separate from another, which makes the same person, and constitutes this inseparable self: so it is in reference to substances remote in time. [...] This may show us wherein personal identity consists: not in the identity of substance, but, as I have said, in the *identity of consciousness*” (Locke [1690] 2006: 225, my emphasis). The question of identity in regard to time and maturation is answered in Bear’s work by identifying the individual’s consciousness not only within a personal process but also within the evolution of the social, of the ideas and experiences transmitted from generation to generation, all of which form a global consciousness that moulds the person’s identity following “prior models of self” (463). As we have seen in the present dissertation, the different texts focused on identity show us diverse theories on the components of personality. Richard Morgan’s novels, for instance, analyze the role of the body and gender in the construction of self-awareness by switching minds between people of different sexes;

Permutation City and the film *The Sixth Day*, both refer to doppelgängers and clones as an exercise that answers these questions based on the individual's memories and experience. Bear, on the other hand, makes use of his AI allegory to express his theory of identity rooted in the sum of intertextual sources, or, that is to say, of the personality, memories and experiences of *others*, thus acknowledging the existence of a 'noosphere' in which the ideas and knowledge of generations exist in a latent state, all of which will be bequeathed to ensuing generations. For this, the scientists in charge of the AI program provide their intelligent computer with pieces of personalities from real people and spread psychic units into its artificial core in order to jumpstart the process of generation of self-awareness, as argued by one of these scientists in the following conversation with Atkins, the developer of those AIs:

"They say they're trying to raise humans to the level of angels—to perfect us by, you know, weeding the garden. Roger Atkins is trying to make something or someone that isn't even human."

Atkins: "That's an interesting comparison. Parts of Jill are very human. It's no secret that I and four fellow researchers have downloaded significant portions of our personality patterns into Jill's systems. Jill is like all of us having one child, but that child simply hasn't been born yet" (130).

In this way, Bear also underlines the role the 'imperfection' and perfectibility in the essence of humans; this imperfection, derived from mankind's historical and communal past, constitutes an important element of human knowledge (and hence identity) insofar as part of the heuristic methods (trial and error) that composes the main cognitive tools entail a degree of imperfection which allow us to learn from mistakes.

In addition, Bear, like other sf writers, plays with the idea of building artificial entities which, like Frankenstein's monster, are assembled from fragments of other people's bodies. As we have seen, all the attempts to create life, beyond the substitution of women as procreators, represent man's endeavor to substitute or, at

least, to understand deities by emulating their creative procedures. Therefore, for Bear, if God created man to his image and likeness then he should have a composite postmodern mind which results from the accretion of others' knowledge and experience. The scientists in *Queen of Angels* (deities of a kind) recognize their postmodern past as the main constituent of their powerful minds and intend to create machines that run on the same principles as their own psyche. God's mind is then the product of the amalgamation of diverse sources, the experiences of other deities that allow us to understand the universe as a series of recurrent feedback loops that generate consciousness. In this manner, Bear also suggests that, since personality is the sum of others' experiences, a snowball-effect directs the growth of personal consciousness and, since this consciousness is formed by means of accretion, at some point there must have been an 'unmoved mover' that started this movement, like the scientists who jumpstart Jill's awareness.

Thus, more than ever, postmodernism is taken as a description of the basic construction of consciousness, and defines it as an intertextual interaction and network-like interconnection between individuals from the past and the present. In this manner, Bear's postcyberpunk definition of identity as a large library also depicts communal knowledge as an interconnected series of networks that will provide information for an individual to develop free-will or, in the worst-case scenario, this variegated knowledge will socially determine an individual due to the amount of role models and patterns that influence his/her life. This is the case with Jill, a computer that encompasses a variety of roles and programmed functions, as shown in the following conversation between Jill itself and Atkins: "[Jill:] I carry multitudes such as AXIS Sim and models of yourself and others and models of human history and culture within me. [...] These qualities define me [...]. [Atkins:] 'If my hunch is

correct, you're an individual, Jill'" (454).

Bear's idea of identity based on self-awareness requires the presence of 'others' that show the individual the intertextual path of social patterns and question his/her limits and roles within society. For this, once again computer technology provides a ground that serves as a mirroring image of the self and helps the individual recognize his limits by defining his/her personality. As in *The Matrix* and *Simualcron 3*, cyberspace teaches us that the mind is not the only element that defines the self, since a digital image, a person's doppelganger, is needed for the interaction in virtual reality. In this manner, physicality shapes identity, but virtuality also molds the physical, as Jeffrey Schulz explains:

However, cyberspace is not the only site where identity currently is constituted. There still must be a physical body that shapes itself in real space before there can be a virtual body. *As such, identity remains, to a certain extent, grounded in physicality.* But it is the way in which the physical body invents itself in real space that allows it to be virtually constructed. The use of a credit card provides an example. Each use of a card is first an inward construction of identity through a purchase-to paraphrase Barbara Kruger, "I purchase, therefore I am". But the use of a credit card also enables virtual space outwardly to constitute the consumer's identity in terms of demographic information. One result of this situation is that *individuals now exist as multiple entities.* The concept of a stable, *Cartesian identity has been replaced by a highly unstable, dispersed identity* (1993: 438, my italics).

For this reason, conscious of this debate, Bear also endorses the idea of an unstable yet rich personality that, on the one hand, is provided with a vast number of roles and patterns to choose from in order to shape his/her identity, but, on the other, the individual is at risk of losing a sense of uniqueness and distinctiveness since his/her personality represents the sum of others'. This is why the book addresses the issue of identity by means of Socratic questions, allowing the individual to muse about the essence of his/her self:

Why did the self aware individual look in the mirror in the first place? *To define its limits.*

Why did the self aware individual look in the mirror? *To understand its existence in relation to others.*

Why did the self aware individual look in the mirror? *To confirm that it was not nothing* (429, italics in original).

Perhaps the best experiment carried out by Bear is related to the expedition of an AI to a distant galaxy where it attains self-awareness not by means of its relation with the others (or ‘others’) but by just realizing the limits and cohesive elements that constitute its personality: “[AXIS:] But out here, there are no others. Self awareness is a relation to one’s own existence and to the existence of others. I can think only of myself and in my aloneness I become less than before; I become aware that I am nothing” (429). Yet, in order to achieve the realization of those constituents that build identity, a sense of gain, possession and property might also ignite a feeling of cohesion of the personality. It might not be material possession what defines the self, but an ‘animalesque’ sense of preservation and self-protection and, within a hostile environment, retribution and revenge as well. The protection of the elements that constitute the self provoke a sense of unity that, by means of a feeling of gain and ownership, enables the individual to locate his/her place in relation to others. Thus, the impression of receiving equal treatment and opportunities that an individual necessitates to regard himself as part of a healthy society and the balance in the allotment of justice is, according to Bear, what might constitute the dawn of the definition of the self, while vengeance and retribution, a biblical affair that defines the identity of an entire people, represents a good start for the recognition of identity based on a sense of self-worth, as shown through Atkin’s musings:

You seem to be suggesting you might find a clue to self awareness, to integrating your self modeling systems and establishing just the right kind of feedback loop through a study of the ideas of justice and retribution. [...] simple retribution, that is, an eye for an eye a tooth for a tooth [...]. Were someone to cause my system harm, I cannot conceive of wishing them harm in return. That may be because *I am not self aware and thus have no sense of self worth*, and therefore nothing to offend. [...] Hypothesis: Is the key to self awareness to be found in contemplation

of the principle of revenge? (243, my emphasis).

Thus, the self-value of an individual amounts to another element that interacts in the definition of the self, and although Bear does not consider gender or anatomy as determining components of identity, he does endorse social bonds and materiality (a certain degree of bodily physicality) as important ingredients in the shaping of an individual's personality along with self-awareness and the interrelationship with others.

Nevertheless, two questions remain unanswered in Bear's proposal, one, acknowledged by the author himself, the other, an element that escapes his scope. The first question has to do with the failure of complexity to produce self-awareness, the second relates to the question on how exactly self-consciousness is produced at a biochemical level within the brain. Complexity, in Bear's narrative, is expected to yield self-awareness in order to differentiate humans from automata insofar as the latter are capable of manipulating a great amount of tasks like or even better than humans. Yet, unlike the way human beings function, the operations realized by machines do not involve a sense of worth, of interrelation or intertextual knowledge that humans do have: "if self awareness does not automatically follow from complexity, a significant percentage of human beings may also be little more than convincing automatons [...] we thought that self awareness would follow almost naturally at some level of complexity. This has not proven to be the case" (289).

Bear's narrative, thus, proves that the elements that constitute identity are based, firstly, on self-awareness (based on recognized routines and subroutines), and then on self-value, social interrelations, independence, collective usefulness, a sense of error and guilt, and a personality gleaned from others' cognition; nevertheless *Queen of Angels* fails in proving how and where is human self-awareness created within the

brain and/or the totality of the person, and thus underlines the incipient level in which science stands as it attempts to answer these complex mysteries.

III.2.2 Massive institutional control and collective behavior: the influence of desire and technology on free-will

Queen of Angels' futuristic setting and its concern on psychology allow us to explore not only the influence of technology on individual behavior, but on social department as well. In the novel, socioeconomic classes cease to exist in favor of psycho-economic strata, insofar as the 'therapied' constitute an entire faction whose counterpart are the 'untherapied' and the Selectors. Nevertheless, the great majority of the people in *Queen's* description of the US belong to the first group, a clear allegory that associates therapy to the widespread assimilated capitalism which homogenizes the psyche of the masses. On the other hand, the untherapied constitute a group of ideological dissenters who cherish their complex minds as a token of a more natural lifestyle.

Thus, these fictional ravenous and rigid capitalistic US regime regards therapy as a double-edged sword that, on one end, molds the people's mental structures and turns them into exceedingly competitive workers whose production is increased as their psychic stability increases ("About sixty five percent [of the people] have had some form of therapy, however minor. Some therapy helps improve performance in difficult jobs. Socially oriented therapies help people work better with each other" (255)). On the other end, therapy reduces criminal rates in a dramatic manner: "Physical violence in the USA had declined markedly in the past fifteen years. The therapied did not seek violence" (6). Criminals must equally be therapied as a requirement to regain their freedom. The choice that people make in regard to whether undergo therapy or not resembles a classic Christian dilemma between the choice of good vs. evil, where the only real choice of an individual is for good (since evil is a deception exerted by an malignant genius or, in this case, brain chemistry or trauma);

therapy stands as the only politically correct choice for people gone stray people to return to 'righteousness'.

Nonetheless, the central point of this capitalistic and/or religious analogy remains free-will, as, with therapy, the individual is deprived from the Christian principle by which a person can disclose what good is by analyzing evil and by being confronted by his/her own wrongdoings, learning from them in the same manner the virtuous characters from biblical times learned by means of temptation. Thus, Bear makes use of a method that resembles the one used by Philip K. Dick's in his 1956 short story 'Minority Report', later adapted into a film in 2002. Bear, like Dick, describes a constricting institutionalized force that, on the one hand, seeks a communal benefit and, on the other, cannot help restricting individual freedom in favor of the social. In Dick's short story, 'precogs' (mutant soothsayers) and 'Precrime' (the governmental institution that anticipates a crime by arresting potential criminals) work together in a method that eradicates 99.8% of crime by acting in advance of the perpetration. Nevertheless, the future, according to the story, presents diverse possible time paths to be taken which would make preemptive arrests useless. In this manner, the natural cause of actions allow humans freedom of action, but it is man himself who leaves no room for a person to reconsider his eventual decisions, and, with this, the future becomes institutionalized by making it rigid and strict:

"You've probably grasped the basic legalistic drawback to precrime methodology. We're taking in individuals who have broken no law."

"But they surely will," Witwer affirmed with conviction.

"Happily they *don't*—because we get them first, before they can commit an act of violence. So the commission of the crime itself is absolute metaphysics. We claim they're culpable. They, on the other hand, eternally claim they're innocent. And, in a sense, they *are* innocent" (Dick 1990: 73, italics in original).

In this way, Dick implies that, unlike the Greeks who thought of a divine fate as fixed and immovable, human organizations create a rigid fate and social determinism by institutionalizing the course of the future. In the same manner, in *Queen of Angels*, therapy constitutes an standardizing institution that dictates people's behaviors and shapes their views and desires, in the same manner as described by Carter and Vonnegut's robotized police forces whose emotions are remotely-controlled by intrusive technology and by draconian institutions, as the following passage from *The Fortunate Fall* shows: "How much we piss off the Postcops is no longer an issue. They're as pissed as their moistware will let them get" (Carter 1996:194).

In this respect, in Bear's narrative, institutionalization also becomes a phenomenon that hinders the natural process of self-determination. Moreover, since therapy aims at the optimization of production, *Queen of Angels* explores the mental techniques of Taylorism, as all the specialized labors described in the novel imply that the person's skills must be equaled with the type of (white-collar) line of work s/he will practice, perhaps a reference to the urban legend about Soviet imposition on a person's profession according to his/her skills in order to ameliorate the rate of production. In this regard, the two 'social' classes existing in the novel ("Is this true, two classes? [...] 'Those who accept the practice of mental therapy and those who do not. Generally speaking, there is discrimination against the latter'" (310)) generate a division not only in respect with their wealth and social status, but with their ideologies and worldview, inasmuch as the untherapied are on the lookout for a more natural mental lifestyle while the therapied are totally dependent on the system. The abundant salaries that the therapied earn nevertheless contrast with their limited perspectives, reactions and emotions, a high price they pay for social stability, as

exposed by Soulavier, Yardley's assistant, in a tirade against the US methods of control:

To receive fulfilling employment you must have an acceptable mental and physical health profile. Refusal to be treated for mental or physical disorders... makes it difficult to be accepted by employment agencies. In most of the USA employment agencies screen applicants for the higher paying job opportunities. [...] All of Hispaniola's vitality [...] comes from the refusal to give in to practicalities, to admit reality too deeply into one's head (310).

In this manner, therapy stands not only as an allegory of compliance with an oppressive system, but of the assimilation of a controlling ideology as a way to avoid the difficult task of making personal decisions; the therapies then allow institutions or governments to make such decisions for them. As mentioned in the previous section, in Bear's view, identity is also influenced by the personal decisions made by an individual through his life, a fact that implies that institutionalized decision-making is also directly responsible for the obliteration of personality, as Jill's meditations show: "*I am who I am because I have been given a choice. I have chosen and damn you all*" (117, italics in original). Therapy, as a standardizing method, hampers not only people's vision or their professional development, but also their personal projects and dreams. The counterpart of such identity effacement is violence, a byproduct and an indicator of the latent avidity for transcendence and notoriety, an indicator of desire, enthusiasm and zeal, usually taking the shape of war or social unrest.

As an allegory of modern psychiatry, Bear's 'therapy' is associated with illusory happiness and social communion, but, at the same time, with the erasure of identity and the attrition of desires and personal projects. Thus, therapy arouses the same questions Fukuyama posed, such as examining the pros and cons of prevailing psychiatry: "Could all of that struggle in human history have been avoided if only people had had more serotonin in their brains? Would Caesar or Napoleon have felt

the need to conquer most of Europe if he had been able to pop a Prozac tablet every now and then? If so, what would have become of history?" (2002: 46).

In *Queen of Angels*, these considerations led to a massive obliteration of the traits and personality of man, the loss of individuality and of the properties of his psyche, perhaps an allegory towards communism which, as it was thought, would obliterate the peculiarity of individuals. Nevertheless, communism did not erase the personality of the masses as it did the hyper-informational modern societies of late capitalism. It is perhaps because of self-indulgence, self-satisfaction and conformism that the average man, according to these futuristic narratives, has utterly lost his desires for authenticity and, instead, has acquired a penchant for standardization, laziness and self-contentment, a phenomenon that Ortega y Gasset identified as the 'mass-man', the 'middle man' and the 'Señorito satisfecho':

Nunca ha podido el hombre medio resolver con tanta holgura su problema económico. [...] A esa facilidad y seguridad económicas añádanse las físicas: el *confort* y el orden público. [...] Lo que echo en cara al "señorito satisfecho" es la falta de autenticidad en casi todo su ser. [...] Y al aceptar esa porción de autenticidad cumple con su deber. El "señorito satisfecho", en cambio, deserta de sí mismo por pura frivolidad y del todo –precisamente para eludir toda tragedia (1996: 137).

Ortega y Gasset recognizes abundance, wealth and comfort as the origin of the mass-man's indolence, a byproduct of late capitalism that provokes a widespread lack of desire for transcendence and originality; instead, the mass-man focuses on material assets and petty pleasures, by which he embodies the 'desiring machine'⁶⁷ described by Deleuze and Guattari. Derived from Bear's definition of identity as the sum of multiple of personalities, the fact that the subject is at the same time himself and the

⁶⁷ Deleuze and Guattari describe a consumerist being as a desiring machine, a being whose only goals are to fulfill its impulses: "If desire produces, its product is real. It can be productive only in the real world and can produce only reality. Desire is a set of *passive syntheses* that engineer partial objects, flows and bodies, and that function as units of production. [...] Desire and its object are one and the same thing: the machine, as machine of a machine. Desire is a machine, and the object of desire is another machine connected to it" (Deleuze 2004: 28).

‘other’, and embraces his own and other’s desires, his inner self then becomes fragmented. The individual then develops a caesura originated in the composite nature of his identity and in postmodern coercion. This crack is represented by the struggle between the two different social classes, the therapist (lax and conformist) and the artist-like dissenters. The fissure of the individual and the opposition between social groups allegorize and derive from an inherent contradiction of the desires of the subject who, on the one hand, is allured by capitalistic comfort and the absence of transcendental responsibilities, and, on the other, yearns for originality, independence, self-determination and individuality, as corroborated by Jacques Lacan:

He [the subject] is originally an inchoate collection of desires—there you have the true sense of the expression *fragmented body*—and the initial synthesis of the *ego* is essentially and *alter ego*, it is alienated. The desiring human subject is constructed around a center which is the other insofar as he gives the subject his unity, and the first encounter with the object is with the object as object of the other’s desire (1993: 39, emphasis original).

Desire, at any level, either associated with childish or adult impulses, is then the cause of the fragmentation of the individual which, in the long run, will become the fissure of the social, as exemplified by the contrasting social classes in *Queen of Angels*. Many are the sources and critics who signal desire as the origin of evil and disruption, whereas, on the other hand, scholars such as Fukuyama also acknowledge the historical importance of desire as a motor that propels the instinct of survival of the peoples. Desire is also associated with capitalism and war, and as an economic strategy; late 20th century consumerism, for instance, functions on the pure idea of childish desire and of the disposal of items, the loss of interest in commodities once they are in the possession of the consumer. Therapy, in *Queen of Angels*, stands as a symbol of the controlled consumerism that blossomed under the Eisenhower administration in the 1950s USA, a policy that obliges the entire country to buy unwanted, unnecessary or disposable items as a way to accelerate the economy and

avoid another cruel crisis like the one of the 1920's: "Consumerism also incurred changes during the Eisenhower presidency. With the war bringing America out of the depression and the beginning of an era of prosperity, Americans began to embrace materialism. [...] William Levitt [, for instance,] began mass productions of single family homes in an effort to 'produce lots of things at low prices'"(Stewart 2005: web).

The manipulation of desire is, as mentioned, the central focus of diverse sf narratives, as the case of the 2004 Japananimation *Appleseed* which signals desire as the cause of conflict, war and the rupture of harmony. The film imagines the creation of a new breed of humans, the Bioroid, who, deprived of their reproductive capabilities (which turns them into sterile beings), develop no desires and live in rapport among themselves; statesmen then make use of a sentient computer to monitor and administer their relationship with normal people. Desire and emotions are the key to conflicts as stated by a dignitary in the film: "Human has emotions. They argue and start wars. Bioroid is restrained on emotions. They don't hate others so there won't be any fighting. [...] Human being will not stop fighting as long as there are emotions and desires. [...] Bioroid is totally different from human. Without the reproductive ability, they cannot have children. No love, no desire, and therefore no hatred" (Aramaki 2004: film).

The film, an example of postcyberpunk, refuses to demonize technology and, instead, is open to debate. The initial apparently naïve solution to the origin of conflict lies on the eradication of some of the traits that make us human. The apparent proposal is to retain only the functional and operational features of human nature and revoke the ones that cause dissension, like in classic cyberpunk. Nevertheless, as the film develops, this project is deemed unviable, insofar as part of the essence of

humans is not only associated with errors but with the cognitive method focused on the recognition of mistakes, or an understanding brought about by heuristics. These radical measures, the eradication of human flaws, remind us of McCarthyism, racism, jingoism and other dogmatisms that reject tolerance and the knowledge produced by the presence of the 'other', and which attempt to construct rigid societies based upon the laws and regulations that the devisers of these systems can control.

As an alternative posture to counter these impositions (especially consumerism), *Appleseed* and *Queen of Angels* propose a conscious refusal of political paradigms and the natural enhancement of consciousness. Both works signal desire as the agent provocateur of consumerism and social disruption, and both suggest that the eradication of ambition as an incipient solution to the impetus of late capitalism. In this regard, Andy Rooney states that "maybe what some of us need from the medical profession is an anti-desire pill. If we had a desire for too much food, money, sex, sleep or a thousand other things, we could just take this pill and it would hopefully kill the desire for whatever it was that we didn't need" (2010: web). In this way, he refers to the detrimental side of desire, linked to consumerism and political blindness, but, on the other hand, he would definitely agree that a critical way of acquiring consciousness without thwarting the beneficial side of desire (associated with productiveness) would be a feasible solution to the social conflicts of our postmodern societies.

Bear, then, identifies art as the banner of the renegades and mavericks who learn from their own flaws and who recognize the complexity of their own souls. Hispaniola, thus, represents the naturalistic paradigm of those who reject therapy as a way to standardize ideologies and desires; associated with Goldsmith, the island becomes the epitome of nature, religious freedom, free-will and spontaneous

expressions of the spirit such as art. In this manner, the novel depicts the artistic community as a faction of “individualists [who] cherished their untherapied dishonesties or skewed perceptions [and who] thought [of] natural blemishes [as] necessary to art” (12).

On the other hand, the United States is described as indifferent towards religion and art, and as a supporter of strict corporate power, and a uniformed and mechanical production. The country’s artistic community is formed by objectors and protesters who refuse institutionalization and who constitute almost a separate enclaved nation. The US use of LitVids (the shallow blend of images and text that substitutes literature) as normalizing propaganda intends to disseminate a good image of therapy and identify it with what today is known as self-help, a set of ideas that non-creative people desperately require to escape the lack of encouraging perspectives. In one of such LitVids, an anonymous interviewee is described as a supporter of therapy and as a representative of a group who struggles with their own erratic behavior and lack of perspectives, requiring external help such as therapy: “I myself would be half the man I am now without therapy... I consider the reluctance of the untherapied, and their tears about losing individuality, to be groundless. I am not known as a human zero, you know. Some think me pretty crusty. But I wander” (174). LitVids then stand as a set of manipulative mass-media and the perfect vehicle of oppressive ideologies which, on the other hand, represent the only formula for the uncontrollably violent or the manic-depressive to counter their plight. The previous passage underlines the deep concern of individuals (mainly of artists and renegades) toward therapy as an instrument of homogenization, obliteration of individuality, and institutional control.

This phobic setting reminds us of the extraordinary futuristic TV film *Harrison Bergeron* (1995), based on an eponymous short story by Kurt Vonnegut, which describes an ultra homogenized society that promotes the use of ‘handicapping devices’ (such as dumbing-down neurological tampering headsets and bodily weights), all worn by gifted people in order not to stand out from the masses. The backdrop of the film results from a persistent recession after the Cold War which rendered two extremely dissimilar social classes, the tremendously rich and the exceedingly poor. An ensuing war called ‘Second American Revolution’ culminated in the standardization of the entire country into one single social class that promoted inanity rather than intelligence. The eponymous protagonist, Harrison Bergeron, an outstanding student, is forced to dumb himself down insofar as his grades are much higher than the average and hence he fails to graduate due to his extraordinary performance, for which he is escorted to the doctor in order to discuss the possibility of a lobotomy that will solve his ‘problem’ definitely:

[Doctor:] Harrison what is the first article of the New American Constitution?

[Harrison:] That all men are not created equal. It’s the responsibility of the government to render them so.

[Doctor:] Indeed. Harrison you are one of those men, and for all intents and purposes I am the government (Pittman 1995: film).

By the end of the film, Harrison resorts to art and subversion (and ultimately to suicide) as a way to revoke governmental impositions, thus endorsing the need of diversity (even if it entails economic inequity) as the solution to the social stalemate and as a means to encourage the evolution and the thriving of original ideas and personal projects.

In *Queen of Angels*, on the other hand, a similar rebellious spirit occasions the creation of alternate societies based on communal objectives and on their rejection of standards and ideologies. Both Goldsmith’s circle of intellectual friends and

Hispaniola stand as discrete communities that constitute the critical side of the novel toward the cyberpunkish settings that deal with ruthless control and the obliteration of identity. In this sense, Maturana and Varela explain the formation of new societies on the basis of the discernment of communal traits that oppose oppressing ideologies that emanate from reigning power groups: “If the observer human being defines a metadomain from the perspective of which some of the defining relations of the society are undesirable, *he dislikes it, and if he acts accordingly he becomes antisocial* and may come to *validate another society with his conduct*” (1980: xxix, my italics).

Official institutions in the novel, then, refer to the artists’ behavior as antisocial; in reality dissidence simply represents a defiant alternative to the impositions of governments, the schemes that provide an illusory sense of social security based on the health of economies, Taylorism and a non-violent homogenization of society: “Bear seems to see ‘therapy’ as an utopian solution to social unrest. The population has lost their free will, but we see no resistance (Choy’s initial sympathy for Selectors may imply that Bear wants to make the reader choose between brainwashing or vigilante terrorism.) It surely follows that the government is working for the best.” (Blatchford 1994: 60). The purpose of *Queen of Angels* as part of postcyberpunk is to present both the beneficial side and the drawbacks of these institutionalized policies, and, hence, to nominate art, knowledge and a healthy psyche as the only possible way to attain free-will. For this, it is important for Bear to describe a symbiosis between homogenization and the conformism of the masses, a large sector of society that opt for a pleasant but passive life rather than for the excitement linked with artistic or scientific projects, all of which provide life with the meaning that consumerism cannot supply.

III.2.3 Hypertechnologized societies and the dementia virus: a morphology of ‘postmodern possession’

Queen of Angels describes a deep contrast between cybernetic therapy and the natural maturation of the mind. Bear explores, on the one hand, the idea that, by means of technology, the mind evolves in a more efficient, speedier and controlled manner, but, on the other hand, he underscores the role of introspection and self-awareness as the most proficient method of mental maturation, as mentioned previously.

Like Egan and the Wachowskis, Bear depicts a form of mental enslavement that conditions human thought, and which also produce a guilt complex that can be counterbalanced only by a type of redemption. Whereas guilt is related to materiality in *Permutation City* and to Christian philosophies in *The Matrix*, in Bear’s novel a smothering society and governmental institutions provoke determinism and mind obfuscation. This is all exemplified by Goldsmith’s behavior whose ‘immaculate soul’ (the original, untainted form of his pristine personality) is stained by the excruciating oppression of the deterministic society that Bear describes. This is clear in the following conversation within a group of scientists that examine Goldsmith’s case:

“What would cause Emanuel to lose his primary personality?”

“An extreme trauma. Longterm abuse as a child. Matricide. Patricide. These are common precursors to psychosis or to extreme sociopathic manipulative behavior” [...]

“Why hasn’t he been this way all his life?”

“Some extenuating circumstance,” Martin said. “A feeling of justification, perhaps... eroding over the years, finally giving way, allowing a final decay and dissolution of the primary personality and domination by a subpersonality.”
Domination. Damnation (412 italics in original).

One thing *Queen of Angels* and *The Matrix* share is the description of cybernetic social subjugation and its consequences. The Wachowskis' premise revolves around a backdrop of absolute control challenged by subversiveness and disobedience; the socio-political system of the Matrix requires an absolute acceptance of the official ideology to prevent the risk of collapse derived from seditiousness: "those that refused the program, while a minority, if left unchecked would constitute an escalating probability of disaster" (Wachowski 2003: film). Likewise, in Bear's narrative, dissidence represents a possible perturbation for the entire social system, thus making therapy a necessary tool for the unification of ideologies but, especially, for the generation of apathetic behaviors.

In this manner, in *Queen of Angels*, therapy constitutes a scientific description of the psychological structure of the individual rather than a mere homogenizing apparatus. In this way, Bear analyzes the drawbacks and perhaps the failure of the reductionist scientific postures that portray the mind as a machine, a view that strips the subconscious from its mysteries and whims. The scientism represented by therapy contrasts with the continuous sets of popular beliefs and superstitions that form the culture of Hispaniola and some sectors of the US. In this regard, the popular belief that signals the binary millennium (2048) as an impending end of the world is juxtaposed with the scientific spirit and the hypertechnologized society of *Queen of Angels*, a contrast related to the descriptions of the binary essence of humans, on the one hand containing a strong faith toward science and, on the other, an inextricable affinity toward irrational and magical beliefs:

Durrell: "Yes, but what about the binary millennium?"

Vizhniak: "What can I say about it? It is dumb. Once, binary numbers had enormous significance, for they were the basis of all computational systems. *Now binary computation is outmoded*; the lowest of computers use *neurological multistate and ramping methods*... These people heralding the binary millennium are old fashioned, out of date, like so many apocalyptics in ages past. They are lazy about their wonders. They want truth handed to them on a platter of

revelation, a gift from God or some benevolent higher force. The binary millennium is yet another numerological sham” (174, my italics).

The Manichaeian computational binary system here suggests that religions and science serve similar purposes and that, at a certain extent, they share a niche within the collective psyche of individuals, providing either hope or an interpretation of the future. Both, science and religion are expected to decipher the mysteries of the world, the former by means of methodical procedures, the latter by means of collective urban legends.

On the other hand, the “*neurological* multistate and ramping methods” does not only represent a scientific posture, but a critical postmodern view that enables a variety of verifiable methods to be taken as a real possibility (never final nor dogmatic) to answer the riddles of our bio-social systems and of the universe. The structuralist binary oppositions associated with outmoded computer technology and with Manichaeism are then left behind in favor of a poststructuralist perspective that criticizes the atavisms of highly critical informational societies, and which refuses to acknowledge the power of superstitions and fallacies as an interpretation of the world.

The new scientific proposals associated with neural-like cognitive systems derive from the late 20th century pragmatic philosophies that explain knowledge not as the cyclic system suggested by the Enlightenment thinkers (the Encyclopedia), but as a neural interconnection of data, information, and critical erudition. In contrast, Bear endorses non-hierarchical, arborescent interpretations of knowledge like that of Deleuze’s ‘rhizome’, for which cognition is an infinitely intertwining of experiences, or like Latour and Law’s Actor-Network Theory, for which societies, culture and technology constitute a network built by subjects and agents (that which propels action). In this manner, computer technology is described as both an agent

and an actor whose influence in human thought and behavior is the product of an infinite mutual impact between computers and societies. Like Stephenson, Bear also adopts relativism as a critical postmodern approach to construct and analyze diverse models that describe our societies, an analysis of social interactions and experiences embraced by a new neural-like cybernetic model of cognition for which binarism (structuralism) stands as a hackneyed, dogmatic scheme.

In this sense, the binary millennium (2048), more than homage to the centennial anniversary of *1984*, stands as an allegory of the influence of computer technology on human cognition. Influenced by the Actor-Network Theory, for which objects stand as agents that influence human behavior, Bear's cognitive model rejects the old binary schemes (structuralism) as a Manichean view associated with religion in favor of postmodernism and neural postructuralist models.

Bear describes computer technology as heavily influenced by superstitious interpretations; the binary millennium is associated with apocalyptic fears derived from socio-technological changes such as the anxieties and technophobia elicited by the industrial revolution. The binary millennium remains a parody of the infamous Y2K glitch, the so-called millennium bug or the belief that computer technologies would collapse altogether. The social fears associated with the conversion of the year 2000, a social convention that little has to do with any natural indicator, ignites a widespread communal superstition about an upcoming cataclysm derived from a general aversion toward radical changes. Bear thus describes how cultural phenomena exert a heavy influence on the popular beliefs that constitute the general psyche of societies.

In this manner, the Actor-Network Theory explains how the products of technology (like cellular phones or computers) shape or influence the behavior of

societies; likewise, abstract conventions such as chronological ‘turning points’ or popular festivities influence popular culture and communal departments. In Bear’s view, information has the power to modify and influence culture in a beneficial manner; even so, *Queen of Angels* also describes the manipulative power of knowledge and its proclivity toward prejudice and superstition, especially toward the emergence of ‘cognitive biases’⁶⁸, a set of preconceptions utilized by statesmen and ideologists to manipulate situations and control the masses.

On the other hand, both technology and the future elicit a blend of admiration and aversion mixed with a degree of morbidity, generating an ‘expectancy anxiety’ associated with a ‘death drive’, the Freudian Thanatos that finds pleasure in self-destruction. Gruesomeness and the manipulation of information are then constantly employed either as marketing ruses (such as book or gas-masks sales), or as recurrent religious propaganda based on fear and divine retaliation such as the biblical apocalypse, the spurious Mayan end of the world⁶⁹ or centurial changes, all related to a ser of fears originated in the advent of radical changes and the technological future.

This social malaise, associated with superstition and angst, is the reflection of the paranoia and apprehension shown by the highest spheres of power. In *Queen of Angels*, the recently deceased president of the United States, William Raphkind, and Hispaniola’s dictator, Sir John Yardley, both represent the perennial failure of socio-political systems based on controlled and biased information insofar as both make use

⁶⁸ A cognitive bias (such as the use of limited statistics, narrow hypotheses or the concealment of data) constitutes a common informational error and often weakens the reliability of research methods. See Kahneman 2002.

⁶⁹ The preposterous and morbid beliefs about the end of the world constitute a psychic unit in many human cultures: “‘For the ancient Maya, it was a huge celebration to make it to the end of a whole cycle,’ says Sandra Noble, executive director of the Foundation for the Advancement of Mesoamerican Studies in Crystal River, Fla. To render Dec. 21, 2012, as a doomsday or moment of cosmic shifting, she says, is ‘a complete fabrication and a chance for a lot of people to cash in’” (McDonald 2007: web).

of repressive techniques to keep the population under control. They represent a noxious set of cyberpolitics and the failure of dogmatic ideologies and strict control; their policies undermine the development of an objective and pro-science society, that elicits a general unease and an adverse atmosphere, all of which demands a drastic and prompt solution before social uprisings occur, as it finally happens by the end of the novel. For this purpose, social pressure drives Raphkind into suicide as a result of the violation of popular policies and the application of severe techniques such as the clandestine use of hellcrowns to diffuse fear and repression. Raphkind's suicide symbolizes an attempt to purge the country from obsolete ideologies, inasmuch as his name stands for the whole nation's malady desperately in need to be eradicated in order to maintain the so desired balance. This represents another attempt of the novel to rid itself from cyberpunk legacies in order to construct a new set of social paradigms, as revealed in the novel by an interviewee in a documentary:

“We punish ourselves as well, and this is the unsavory side of our push to maturity. What we still do not understand, we attempt to purge with pain. Our late suicidal President Raphkind and his unconstitutional attempts to bring American politics into a kind of uniformity of expression, his attempt to repress what he called destructive dissent. His drastic failure as a statesman, his traumatic failure to change the shape of our judicial system” (174).

Raphkind's suicide, like that of *NEKRomantic's* protagonist, represents a process of purification and redemption by which mankind's ailments are deposited into one single individual, a scapegoat that soaks in communal sins and kills himself, and, by that, evil is eliminated. Raphkind's self-immolation, nevertheless, is the product of his cybernetic crimes (the 'hellcrown' smugglings for instance) and of the social massive rejection of the “uniformity of expression”. People's pressure on their president relates to the fact that they abhor what they themselves represent as a nation and as a cybernetic society; as a uniformed mass of undifferentiated 'individuals', they reject the homogenizing policies that, nonetheless, form an inextricable part of their lives.

This occurrence represents the main reason why US citizens are described as “teenagers [...] struggling with inner forces [they] do not understand, trying to be mature, forcing [themselves] to be mature, and woe to those who put up an appearance of trying to hold [them] back. [They] therapy [themselves]—and that is not to say that therapy is ineffective, for it is one of the wonders of the mid twenty first century, this push for true mental health” (174). Raphkind’s image of a mass ‘hero’ embodies diverse communal values, the policies required to maintain a social homeostasis which, nevertheless, entail a degree of restriction of the rights of the people. It is implied then that therapy constitutes a necessary evil, which, on the other hand, is generally rejected and, for this, the president (a whipping-boy and an emblem of redemption) is put to death; such sacrifice is regarded as a way to preserve the social ‘interior milieu’⁷⁰. By observing strict social norms (which reject oppression), this procedure provides the citizens with an open panorama and an ultra-stable environment.

In this manner, Raphkind’s quasi-mandatory suicide is the product of a social rebellion that expresses the masses’ frustration and weariness, all of which contrast with the respectfulness and the stability of their cyberpoliticized society. This backdrop constitutes an incipient phase of the development of a country, a ‘teenage’ stage that eventually grows into maturation by developing technology; the more advanced the machinery, the more mature the civilization. As attested in the film *2001*, technology constitutes the foundation of the evolution of societies; it is implied that machinery stands as the essence of humankind insofar as the development of culture and ideas, even the transformation of the human physique, is inextricably

⁷⁰ Milieu intérieur or interior milieu stands for the capacity to ensure protective stability for the tissues and organs of multicellular organisms. This can be extrapolated into the social as well. See Gross 1998.

associated with the invention and use of tools, as suggested by dialectic materialists like Engels⁷¹ and Luria:

Man differs from animals in that he can make and use tools. [...] As a matter of fact, the *tools used by man not only radically change his conditions of existence*, they even react on him in that they effect a change in him and in his psychic condition. In the complicated inter-relations with his surroundings his organization is being differentiated and refined; his hand and his brain assume definite shapes, a series of complicated methods of conduct are being evolved, with the aid of which man adapts himself more perfectly to the surrounding world (Luria 1928: 493, emphasis added).

Thus, in the same guise as historical materialism describes the different stages of civilization in terms of the prevalent means of production (e.g. slavery, feudalism, capitalism, imperialism), Bear delineates the evolutive phases of society by discerning the type of technology produced in a specific period of history, and thus identifies babyhood with incipient technology, childhood with industrial machinery, adolescence with binary computers, teenage with neural and nanocomputers (the current stage of the novel's society) and maturity with an even more advanced type of technology. In a similar way, as Egan revealed, the descriptions of the universe according to the prevailing technology in history described our world as clockwork mechanisms in the Renaissance, as PC computers in the mid 20th century, and as a series of programs or neural networks with the early 21st century. Nevertheless, Bear identifies the shape of the psyche and of societies (and not of the universe) with the type of technology available in a specific era: "We *are* no longer children. I would say humanity entered its difficult adolescence in the twentieth century and now we are teenagers. Childhood was the Innocent violence and glory of the Renaissance, the

⁷¹ Engels suggests that labor and the use of tools were the main agents of the transformation from ape to man: "Climbing assigns different functions to the hands and the feet, and when their mode of life involved locomotion on the level ground, these apes gradually got out of the habit of using their hands [in walking] and adopted a more and more erect posture. This was *the decisive step in the transition from ape to man*. [...] Thus the hand is not only the organ of labor, *it is also the product of labor*" (Engels [1876] 2001: 251-2, italics in original).

Industrial Revolution, when we learned to use our hands” (174).

Technology produces a feedback loop that forces societies into mellowing, from which we can deduce that the more advanced the technology, the more influenced a society will be by it. Neural-like and nanotech, unlike binary computers, represent for Bear the solution to the social plight presented in the novel; the more cutting-edge this computer technology become, the larger the probability of solving the social conundrum that affects communal welfare, especially in regard to free-will.

Cybernetic therapy then, a branch of socialized technology, intends to catch up with current times and provide the ground for massive maturation and, mostly, redemption from the iniquity inherited by the social. The great debate about therapy in the novel, aside from the issue of free-will vs. communal welfare, is, precisely, on redemption, the cleansing of deterministic atavisms and social dogmatisms. Hence, whereas Raphkind and *NEKRomantic*'s protagonist both kill themselves in order to eschew evil, Goldsmith's reasons to murder resemble those of *Crime and Punishment*'s protagonist. In Dostoevsky's novel, Raskolnikov attempts to accomplish a twofold operation that, on the one hand, will eliminate a social parasite, the elder moneylender, and, on the other, will perform a humanitarian deed by accomplishing good deeds with the stolen money. In this manner, his objective is to better his milieu and, at the same time, to purge the world from the evil that the usurer represents. Goldsmith, in turn, displays a variety of reasons or justifications, conscious or not, to perform his sinister act, such as a reaction to trauma and child abuse, a means to enrich his poetry, a memetic type of possession, or a capitalist-related stress.

Goldsmith, like Raskolnikov, unconsciously murders to rid the world from the people he considers harmful, a purge that will carry the damage his rapist father did to

him and to society, chiefly insofar as he stands for an entire sector of his community: “He despised them. He specked that if we tried to purge all our evil, there would be nothing left, no spine, no backbone. We’d collapse” (121). Nevertheless, the book emphasizes the fact it was a type of social infection, of memetic possession that compels Goldsmith into crime. One of the components of this contamination is associated with his abusive father, the other with society itself. The novel blames cultural infection as the sources of Goldsmith’s sociopathic behavior and by that, it also suggests that the mind owns a material and fathomable nature which, as the body, can be affected by outer physical agents and can be infected by capitalistic and socio-economic forces.

Queen of Angles thus proposes computer technology as a means to explore the mind as a corporeal element and diagnose it and cure it with the same elements it was polluted: “Martin’s lips curled in a wry smile. He was a pioneer. He was one of the first two human beings [the other one being Goldsmith] to receive through direct transmission the germ of a mental disease. Not to use the word ‘possession.’ To avoid all those connotations” (431). Possession then is equaled to infection, a microbe that, like a computer virus, contaminates the core of the body or the machine with the only capitalistic objective of subduing, colonizing and controlling the individual by imposing an arcane fear and the certainty that people are prone to lose everything, including the control on their own lives and minds at the very time such oppressing powers desire.

The main debate of the novel then is on the need of technology as a means to overcome such constraining forces and, by that, the so desired social evolution will be jumpstarted. Technology will supposedly foster the natural evolution of the mind and of societies by dint of self-consciousness, social achievements and intertextual

experience. In this regard, Richard Fettle, Goldsmith's main friend and devout activist of natural lifestyle, takes the first step into self-evolution by cleansing his own mind from patterns and atavisms (either inherited or acquired by 'infection'), and, in this way, he unconsciously underlines the importance of cybernetics as a model of evolution. Although Fettle rejects computer technology as a palliative self-purging method, it is implied that nano-therapy represents a pointer and paragon of proficiency that a human can emulate in order to achieve similar results: "Richard had therapied himself and that was the way it was supposed to be, as intended by God and nature. He had worked through his own labyrinth and rid himself of his own demon: a friend who had betrayed him but who had also once given the gift of concern and love" (414).

Fettle then becomes capable of reproducing by natural means what the scientists achieve through technology; he epitomizes the success of natural purification and the lessening of the social infection he harbors in his own psyche. Unlike scientists, a recalcitrant circle that holds a faith in cutting-edge technology to ease social malaise, Fettle, like the Neo-Victorians in *The Diamond Age*, endorses the use of natural therapeutic methods and of self-aware lifestyles as a procedure to overcome the insidious influence of capitalistic dogmas. For Fettle, computer technology represents a support, a tool for his purposes, but rejects technological determination and the power of the agents who control such contrivances. Fettle thus evinces the unmatched power of the resolute mind and the fact that, although computer technology facilitate the study of human nature, computers will never fully grasp the complexity of awareness and will be incapable of deciphering the mysteries of the recondite mind which humans do comprehend at least in an unconscious level.

III.3 Oneiropunk: the analogy of the mind with fields of information

III.3.1 The postmodern mind: archetypes, religion and mental hierarchies

Although the exploration of the mind has been a subject of literature, mythologies and religion, not until recently has the issue been approached with a mixture of psychological analysis, science and, especially, technology. In this regard, *Queen of Angels*, as we have seen, is concerned with the recognition of the constituents of identity and personality and their hierarchical structures. To probe further into these issues, Bear makes use of two nova⁷², his contribution to science fiction in this novel, firstly, an abstract space derived from a person's mind where scientists perform analysis, a peculiar type of cyberspace known as the 'Country of the Mind', and, secondly, a composite nanotech implement, a wireless interface that interconnects the minds of the examiners with the subject. This allows Bear to explore Goldsmith's Jungian components and, thus, to attempt to define the origin and nature of evil. With this, *Queen of Angels* stands as a sample of what I call 'oneiropunk' which, in this case, combines elements of nanopunk, biopunk and cyberpunk, all as a part of postcyberpunk.

Thus, oneiropunk explores the mind, the subconscious, mental structures, and diverse psychological theories usually through uncontrollable scenarios and surreal settings which often appear linked to dream sequences, hallucinations or fantastic experiences. One of the pioneer works of mind exploration in literature is Robert F. Young's 1975 short story "Perchance to Dream" in which, with the help of a sedative drug, people interconnect their subconscious and devise remedies for diverse

⁷² Darko Suvin designates a novum as one of the elements that define science fiction. It represents a novelty, a non-existing or perhaps unfeasible device, the main axis around which the plot revolves, "a fictional novelty (novum, innovation) validated both by being continuous with a body of already existing cognitions and by being a 'mental experiment' based on cognitive logic" (Suvin, 1978: web).

psychological conditions, a setting that allows for philosophical debate as well: “The dream-drug, Cuiranin, enabled mentally conditioned endo-analysts like Ranch to enter Darkspace whenever they wished and to retain consciousness throughout their stay; but the Noumenon—the thing-in-itself—was as imperceptible to them in Darkspace as it was in Light” (Young 1975: 51). Young’s ‘Darkspace’ thus resembles Bear’s ‘The Country of the Mind’, although perhaps the main difference between the two is the latter’s use of nanotechnology and the resulting allegory which associates wireless nanotransmitters with a noosphere that interrelates global consciousness with the accreted, intertextual nature of the mind. To this analogy Bear adds computer technology as a component of this mental network and, hence, confirms the Actor-Network Theory’s tenets that signal technology as an influent agent in the actions of the subjects. Information then takes advantage of this ‘interconnectedness’ to flow from terminal to terminal, the human mind included, and stands as the ultimate underlying carrier of evolutive ideas and concepts, just like language has been described to be the intrinsic courier of culture:

The concept of entering someone else’s mind for therapy is not new; Robert F. Young had written a short story on a very similar theme (“Perchance to Dream”). However, it is here [in *Queen of Angels*] associated with controllable technology; one must plug into the person’s brain. This process resembles the technology of ‘cyberspace’ in Gibson’s works, a world where people fight their battles with information. Bear’s Country is more directly a battle of mental images produced by world-views (Blatchford 1994: 64).

One thing Blatchford might be forgetting is the inextricable fact that one does not actually “plug into the person’s brain” but it is by means of a wireless nano-interface that brains achieve interconnection. This underscores the abstract, mysterious and ethereal nature of the transmission of ideas between individuals, cultures and societies, all of which accentuates the Jungian idea of a ‘collective unconscious’, a transcendental dissemination of cultural paradigms and psychic models. The Country

of the Mind, for Bear, represents the place where the basic and common intellectual capabilities lie, the residence of shared structures that take the shape of a defined environment which safeguards the locations where information and consciousness are situated. The Country of the Mind, in Burke's terms,

is a region, an unceasing and coherent dreamstate, built up from genetic engrams, preverbal impressions and all the contents of our lives. It is the alphabet and foundation on which we base all of our thinking and language, all our symbologies. Every thought, every personal action, is reflected in this region. All of our myths and religious symbols are based upon its common contents. All routines and subroutines, all personalities and talents and agents, all mental structures, are reflected in its features and occupants, or are reflections of them (109).

The mind, according to Bear's assorted theories, is basically composed of structures that every human possesses. As a result of his variegated view, Bear's approach to the theory of the mind presents contradictions and complementary ideas, such as the denial of a unified human consciousness as opposed to the common contents upon which myths and religious symbols of the mind are based. His equation of computer processes with mind structures defines the latter as a series of routines and subroutines which represent some of the constituents that link us to animal behavior and that represent ingrained atavisms present in automated tasks such as survival or fear: "All of these subroutines and personalities are laid on a foundation that is older than spoken language and culture and society. Some parts of the foundation are older than man" (108). In this regard, mental structures, like those of society or computers, obey a significant top-to-bottom hierarchy, a pyramid built by commands and power, of authority and priorities, all of which maintain the balance, continuity and sanity of the self: "The self may be a limited knot of cognition placed in temporary charge over many otherwise self reliant subsystems. Indeed. In humans these levels of mentality are called 'routines' or 'subroutines' and are broken down into 'primary personality,' 'subpersonality,' 'agent' and 'talent'" (269).

Bear underscores the fact that priorities and authority represent the basis of mental stability, a militarized view that permeates societies (therapy itself is a militarized imposition) as well as technology (computers must observe inexorable commands to avoid collapse). In this regard, in order to attempt to understand and perhaps cure Goldsmith's condition, Dr. Burke's clique, as they pervade his Country of the Mind, set out to look for the authority figures that have assumed control of his behavior, insofar as it is clear that the contrast of his malevolent actions with his former pacific, prosperous life is related to a shift of the supreme commander within his psyche. This description of the hierarchies of the mind also bears social connotations, since authority forces, not only in *Queen of Angels* but in the entire cyberpunk genres, are described as arcane, lurking, manipulative, uncontrollable and obscure. Burke's group's first objective is to locate authority figures, understand them and attempt to modify their functioning. Nevertheless, Bear utilizes the description of the mind's hierarchies to build an allegory that identifies the Country with postmodern, convoluted societies where command is usually concealed behind a misty curtain, and which manipulate the status quo without making visible the true identity of the figures in command.

The Country of the Mind acquires then a nation-like structure and every subroutine, like the Wachowskis' description of the universe based on specialized programs, is related to a specific task, where the main authorities, recognized here as 'routines', are in charge of the operation of large mechanisms. In this manner, the procedure to restore an individual to normality after an aberrant routine has seized control is to eliminate the highest ranked authority and replace it with a healthy one. Unlike therapy, which seeks to repress or indoctrinate a set of lesser subroutines in order to maintain a degree of orderliness without heeding the behavior of the main

routines, Burke's intention is to restructure the individual's mind from top to bottom, starting from the most significant figure, as exemplified by a scene inside Goldsmith's Country in which Burke et al try to repel an attack waged by disorganized but aggressive forces, and then restore order:

What are we looking for?

|A phone booth, Martin said.

|Excellent idea. Whom are we going to call?

|The boss. A boss. Anybody with some authority.

|The mayor, perhaps, or the President. Martin shrugged.

|I'd be satisfied with a convincing janitor (358, the marks in the original imply a communication between the scouts within the 'Country' and the control centre).

Bear's achievement in this novel is that of constructing a parallel between the corruption presented in Goldsmith's psychic structures and the socio-political anomaly carried out in Hispaniola. In both cases, a corrupted routine (or a corrupt political leader) has taken command of a complex organization and exerted an unfettered, unrestrained power over all the other routines and subroutines, and in both cases the solution seems to be a coup d'état, or the defenestration of the controlling master authority. In Goldsmith's case, a powerful dormant Oedipal function has seized power and manipulated the rest of his subroutines into antisocial demeanors, insofar as a pattern related with hatred and resentment (derived from his father's abusive conduct) has emerged from his subconscious and exacted retaliation. Repressed memories, we are later informed, surfaced, making manifest the fact that Goldsmith once charged against his father, killing him. In such oppressive political times in which therapy overwhelms art and freedom of thought, we can deduce that a set of avenging routines have been awoken and forced Goldsmith into rebellion, and demand for retribution, thus performing such indiscriminate killings.

In this regard, Bear's concern is on the censorship upon free-will, not only by imposing ideologies, but by our own mental structures. For him as for Allan Wolfe, a

degree of freedom can be obtained if those deleterious or inoperative mental rules can be identified and discarded:

Here the Meadian distinction between mind and brain becomes crucial. Brains, understood neurologically, can be imagined to be information-processing mechanisms that work by following programmed rules. But minds do not. What makes human intelligence different—and what therefore makes models of society based on analogies with the machine inappropriate—is that, in human societies, people alter the rules they are expected to follow by incorporating information from the contexts and situations in which they find themselves together with others (Wolfe 1991: 1091).

Bear's exhortation then is on the identification of those negative routines, embodied by Richard Fettle's successful self-therapy, as the main defense against the deposition of personal structures and the upsurge of anomalies such as the resented, violent functions that remain usually repressed but which manipulate the mind from deep within: "Richard had therapied himself and that was the way it was supposed to be, as intended by God and nature. He had worked through his own labyrinth and rid himself of his own demon: a friend who had betrayed him but who had also once given the gift of concern and love" (414). Fettle's psychological triumph is associated with a conscious inclination and a self-conviction toward a conciliative (and not an antisocial) demeanor, here expressed as tolerance and love.

In this manner, Bear's mental structures resemble diverse hierarchical organizations such as the military, the social or the political, like either feudal monarchies or modern federations. A family after all, as a representation of this social structuring, stands as a strict communal organization that seeks to colonize and dominate its members, repress their desires and give them complexes in order to keep its apparatus working. As it happens in John Milton's allegory in which monarchic hierarchies and heavenly echeloning are paired, Bear constructs an allegory that equals Hispaniola's political ranking, the structure of the mind and, especially, the Haitian voodoo pantheon.

Once in Goldsmith's Country, Burke's team comes across a series of unexpected discoveries in regard to his mental organization and uncover the power and influence of the atavisms related to his African background. In this regard, plenty of voodoo mythological narratives are in charge of authority positions within his mind. The main reason why Bear opted for a Haitian setting and a black protagonist might imply an association of polytheism with the postmodern nature of contemporary mind structures. Polytheism entails a hierarchized system in which diverse deities are in charge of specific and significant cultural events or perform as rulers of a particular festivity or rite, such as fertility or war. Nonetheless, in most polytheist systems a dominating figure stands out and rule over the lesser divinities. Bear apparently selected such a religious setting not only because of the resemblance to postmodernism, but because of the geographical propinquity of voodoo religion with his American setting and because of the degree of flexibility of these myths to represent Jungian archetypes.

Unsurprisingly, most of the Haitian figures found in Goldsmith's subconscious are related to violence or authority, and, especially, to the encouragement of chaos and upheavals, while the central and most powerful figure is again a postmodern composite that dominates the entirety of his mental functions, and which associates his personal figures of power and his religious traces with political personalities such as Hispaniola's dictator:

We found strong figures representing his father in the Country. Violent, horrible figures, all mixed up with images of Colonel Sir John Yardley [...] Carol Neuman and I met a dominant force, representing the apparent central personality in Emanuel Goldsmith—a figure with access to all of Goldsmith's memories *and* routines. But this routine could not have been a primary personality from the beginning. It's a latecomer, a lower form risen to power. We found evidence that the primary personality is now extinguished. [...] It seems one routine, perhaps a subpersonality, has moved into a position of authority (410-11).

This mental coup d'état was not the product of one sole powerful overthrowing personality, but the product of an entire 'political' stratagem that requires the assistant of other deposing and violent subroutines. One of these cases is related to the 'hunter' archetype, involving the destruction of ancient frameworks, arrangements and organizations to make way to fresh new ones as an allegory of eternal rebirth and eternal return: "Complex of the hunter. The internal killer as old as spinal cords, linked to the scent, seeker after blood, master of fight or flight. [...] In Emanuel Goldsmith that subroutine had taken the shape of Sir, the father, now linked with Colonel Sir John Yardley" (390). In this regard, Goldsmith's murders are associated with a necessity to renew the social circles around him, as well as his poetry, his views and the political environment, while his brutal behavior, a necessary evil, stands as nature's cruel but cyclic system of life and renewal.

Nonetheless, aside from these Jungian archetypes, the voodoo loa play a significant role in the comprehension of Goldsmith's complex psyche which, in turn, stands as an sample of the functioning of entire social and political structures. The best example of this constitutes an assortment of postmodern rehashes of former manifestations, a polytheistic framework and a set of Jungian precepts, presenting an interesting blend that explains the essence of our amalgamated essence by demonstrating how the mind revamps and reinterprets older structures in order to build new ones. This subtle redesign involves a reappraisal of the dualities, contradictions and complements: one of Goldsmith's deep-rooted archetypes turned out to be a recreation of the myth about the Marassa Twins, ambivalent deities older than any other gods yet younger than all, female and male at the same time, an epitome of duality and the blend of contradictory forces:

The Worship of the Marassa, the Divine Twins, is a celebration of man's twinned nature, half matter, half metaphysical; half mortal, half immortal; half human,

half divine. [...] Today the Marassa are said to be the first children of God and their feast has, in some cases, been assimilated to Christmas, itself a celebration of a holy child, offspring of one human and one supernatural parent. The sense of firstness, newness, beginning, innocence—in sum the childhood of the race (Jennings 2008: 58).

The version of the Marassa Twins within Goldsmith's Country rebel against a dominant figure known as 'Sir' who represents the central authority, and they both kill him in a representative manner, since he is deposable, although, as a mental structure, not mortal. The twins represent another version of the eternal fertility and rebirth, and the necessity of a sacrifice to maintain life. These figures personify the Jungian complementary archetypes of anima and animus⁷³, and as well as the life and death principles that regulate the complex nature of the subconscious. These are the creatures that intend to take over Goldsmith's psyche by attempting on the life of the main authority, another complex figure that is presented as the giver of life and rules, the embodiment of the father whose stringent power represents order but also imposition, and, being part of the elaborate struggle for power, he needs to be destroyed in order to provide a degree of creativeness and personality:

“Remember, I have died before, and I am your father who made you, Sir said, but he shrank before the *Marassa* with his guilt and fear. So much smaller and weaker became Sir at the memory of his sins that the *Marassa* was able to grab him from behind, take the huge steel knife and cut his throat from ear to ear. [...] Yet wherever *Marassa* went the voice of Sir followed, saying, My crime was vile but yours is more horrible still. You cannot kill me. I made you. I am here forever” (370).

⁷³ The unconscious female expression in the male is known as the anima, whereas the male traits of a female is referred to as the animus: “Turned towards the world, the anima is fickle, capricious, moody, uncontrolled and emotional, sometimes gifted with daemonic intuitions, ruthless, malicious, untruthful, bitchy, double-faced, and mystical. The animus is obstinate, harping on principles, laying down the law, dogmatic, world-reforming, theoretic, world-mongering, argumentative, and domineering. Both alike have bad taste: the anima surrounds herself with inferior people, and the animus lets himself be taken in by second-rate thinking” (Jung 1968: 124).

‘Sir’ stands as the Yardleys and the Raphkinds, as the ‘other’ who forms part of the family, and who needs to be overcome because of his rigorous impositions since he is also responsible for the chaos within Goldsmith’s mind and, metonymically, for the socio-political bedlam depicted in the book. The fact that he remains alive and cannot be destroyed allegorizes the perennial presence of dictators and severe rulers in the history of humankind who stand as fatherly figures and as the origin of the laws that govern societies. The complementary nature of the Marassa Twins are the key to Goldsmith’s rebellion as an artist, the interdependent elements that constitute the soul of a creator who rejects ideological impositions such as therapy. The feminine struggles and complements the masculine, the savage and the civilized man live within the nature of the Marassa Twins and from here the creative man emerges, even though he makes use of drastic measures such as murder to allow his free self to escape the deterministic forces of the state:

Yet Reszler persuasively points out that behind most of these images of the ‘new man’ there lurks that familiar old fellow, the Noble Savage, a mythic creature endowed with all sorts of qualities that civilization has supposedly corrupted or worn away. Reszler properly questions this romanticization of the primitive, reminding us that regimes which set out consciously to foster a ‘new man’ have usually brought totalitarian havoc in their wake (Toffler 1981: 307).

Goldsmith’s contention against impositions are a desperate cry for freedom and for the recognition of the complementary forces that constitute his nature, the giver of life as an artist on the one hand, the killer and regenerator on the other; he subconsciously understands he is a part of society and must observe the laws, but breaks free from this and crosses the boundaries of others’ prerogatives, attempting on their lives. Goldsmith’s disobedience of the social rules imposed by tyrannical personas might be linked with *The Matrix*’s main principle of insubordination and rebellion toward oppressive rules and stuffy ideologies. As in the Wachowskis’ films, Goldsmith’s

struggle aims at refusing to become an unaware robot, a sprocket in the capitalistic gear with no personality, like the therapied:

A subpersonality, surfacing to take control, may not assume the full cloak of social routines. It may not be aware of itself, per se. Its range of possible actions if it takes charge may extend beyond the socially acceptable because it does not fear pain or punishment; it doesn't fear any sanctions, certainly not social disapproval. It does not know that it exists, any more than an arbeiter [a robot] does. We've all heard theories that some *criminals may be little more than automatons* (412, my italics).

It is implied that those who do not recognize his malign subroutines become robots, the homogenized therapied victims of draconian societies who follow the law of the father uncritically; this is the reason why a conscious character such as Goldsmith, a creator and destroyer like the Twins, opts for a conscious self-punishment and determines to die, not only as a purging method, but as part of the birth-death, creation-destruction process inherent to every social and natural system. Goldsmith thus defies authority and social impositions, while his poetry stands as a symbol of his avidity for liberty and his refusal to be therapied and pigeonholed by corporate tyranny. Goldsmith rejects any hint of self-grandeur as a overt resistance against a cult of personality or a possible similitude with corporate order; his analysts probe that line of investigation when they examine his case and arrive to the conclusion that "Jung: Messiah is always connected with inferiority complex. But no evidence of that here" (112). His suicide, more than defiance to corporate or governmental structuring, signifies a refusal of the social order and a return to the mother-land, to his origins in order to look for a new beginning, the redemption that society so much needs. Guinée here then stands as the mythical place where new beginnings take place, the perennial source of fertility where human ideas emanate, including his poetry, and which represents the return to humanities as the solution to the diverse social riddles: "That is where Guinée the Homeland truly is and shall be reborn [... ,] a place with little

industrialization, no machinery to speak of, a place of farmers and villagers, tribes and kings, nature religions, a place where gods came and spoke to the people directly through one's own mouth" (368). Whereas the struggle inside Goldsmith's mind represents the chaos of the social, the constant depositions of the figures in power, the echeloned structures of corporations, institutions and nations, *Guinée* stands as the humanistic counterpart of this mechanized and utilitarian setting, the return to the pristine human nature which seeks renewal in the arts, in originality, creativity, personal desire and the consciousness of the people in lieu of the homogenized, rancid and barren struggle for power that forms part of the postmodern societies depicted in these texts which are not really distant from the structure of our communities.

Chapter III.3.2 Oneiropunk, a nascent category: the mind, the subconscious and cybernetic phenomena.

As mentioned, oneiropunk highlights computer technology either as an allegory of the functional structures of the mind or as a probe to enter a person's psyche to uncover its dimensions and its cultural interconnections, including the intertextual contributions derived from interpersonal contact. The 'wetware' writers determined the double interrelation of the mind and computers, on the one hand, a description of the brain and its functions by means of cybernetic allegories, on the other, the design of the brain as a model for machines. The main fantasy of cybernetic narratives is to achieve a wireless neural network by which a colossal amount of information can be almost automatically transmitted between individuals. "[The] software of the future," Timothy Leary asserts, "and the interfaces between individuals and the Matrix, will be designed for people to interact with their own minds and with one another" (1990: 233). More than any other SF genre, cyberpunk and its derivatives focus on the delimitation and definition not only of identity and personality, but of the mind itself.

Oneiropunk, then, spreads over the totality of the mind, although its main foci are to discover the secrets of the subconscious usually by means of (or driving through) dreams. The mind is regarded as a ghostly scenario where command struggles against uncontrollable substances, an explorable abstract landscape comparable to that of cyberspace. The association between cyberspace and the mind, as expressed by Bear, reifies the abstract nature of the mind and, on the other end, stresses the incorporeality of cyberspace by assigning mental-like traits to it, as suggested by Howard Rheingold: "Cyberspace is a human computer interface, but it is

also a mind-space, the way mathematics and myth are mind-spaces—mind-space you can walk around in and grab by the handles” (1990: 450).

The ultimate aim of oneiropunk, thus, is to scrutinize the realm of the mind as an epistemological exercise and as an attempt to mend individual dysfunctions and atavisms. By navigating these mind-spaces, oneiropunk authors (Tsutsui, Christopher Nolan, Bear, etc) examine the nature and functioning of the dreams as the threshold of the subconscious (or vice versa) and, like Gramsci and the Freudo-Marxists signaled, they analyze the role of psychological anomalies as the origin of socio-economic calamities.

In this regard, oneiropunk works pay special attention to mythological units as a description of unconscious behavior, such as the case of Young’s short story “Perchance to Dream”, Stephenson’s *Snow Crash* and Bear’s *Queen of Angels*, all of which recur to Freudian-like narratives to explain massive or individual deportments. Young and Stephenson’s narratives focus on Sumerian mythologies to exemplify the tricky and guileful nature of control and the unstable environment that a figure like Enki, the god of intelligence, crafts and water, governs. For Young, the hazy image of Enki is related to a psychological unit associated with reproduction and breeding, a psychological component that stands against the fear to death. The struggle of Enki against a mythical serpent represents the cause for a patient, Naomi, to develop world-rejection and self-dejection “Her anamnesis had told him very little of the cause behind her rejection of the world, and it might be difficult to uncover. But truly, she would not be difficult to love” (Young 1975: 61). This conflict represents an atavistic battle of pristine, immaculate life (embodied by a lion-figure and water) against deviation and corruption represented by the biblical figure of the serpent.

In Stephenson's work, Enki stands as the trickster and as the inoculator against the corruption brought about by the cult of Ashera, a Sumerian deity associated with Ishtar and who infects human societies with a disrupting virus that prevents societies from flourishing by creating a Tower-of-Babel syndrome that debases language and thus hinders communication and evolution. In this way, Stephenson recurs to the contagious nature of atavisms ingrained or imposed in the human psyche as the cause of the impossibility of communication in cybernetic/postmodern times.

In this manner, either deep-rooted ancestral mythologies or trauma represent the major topics studied by diverse cybernetic narratives that explore the mind and/or the subconscious. This is the case of films such as Tsutsui and Kon's *Paprika* (2006), Tarsem Singh's *The Cell* (2002), Michel Gondry's *Eternal Sunshine of the Spotless Mind* (2004) and Christopher Nolan's *Inception* (2010), all of which deal with the exploration of the mind or the interconnection of the collective subconscious by means of computer technology. In the Japanimation *Paprika* an unfinished state-of-the-art device (the DC) is utilized to rectify a person's deviated conduct by means of probing his/her mind and prescribing an adequate psychiatric solution to the case: "The DC represents the hope that shines on new horizons of psychiatric treatment" (Kon 2006: film). Nevertheless, the device is stolen and misused by a terrorist to annihilate an individual's personality and subconscious, rendering them prattling eccentrics whose discourses lack coherence and composure. The cohesive mechanisms of the mind, what assembles rationality and unity, are then disarticulated and the person loses the sense of sobriety and his/her free-will. A cyberpunkish character, the audacious subconscious-detective Paprika, breaks into people's dreams and helps uncover the source of their anxiety or neurosis. As the film grows more complex, it is disclosed that the Chairman, the crippled CEO in charge of the entire

project, is the ambitious hijacker whose theft will allow him to take over humanity and reinvent the cosmos to a new order under his command. As the characters form a massive network of dreams connected via de DC, the boundaries between the waking and the sleeping realities fracture and both worlds merge, causing the waking domain to be invaded by a psychedelic parade of outlandish, bizarre characters, all out of control. Paprika finally discovers the Chairman's evil-minded desire and defeats him by devouring his ethereal being.

The film's depiction of dream pervasion relates to an ideological intrusion into the most intimate, malleable and vulnerable part of a person, rendering them powerless, ineffectual and to the mercy of manipulative institutions. An overt allegory of militarized indoctrination, the crazed characters fall prey of an inescapable propagandist system that forces them into estranged behaviors and into acting against their will, a hyperbolic description of the demeanor of soldiers who perform preposterous maneuvers at the behest of deranged superiors. This intrusive backdrop resembles a passage in Tom Delillo's 1985 novel *White Noise*, in which an alienated girl, Steffie Gladney, mutters a mantric repetition of a TV advertisement whenever she experiences fear, without anyone noticing it. In a world deprived of common-sense religions, these characters turn towards capitalistic dogmas as the only self-subterfuge capable of pacifying their startled plight. These manipulative mantras strike the most susceptible component of the self, the subconscious, and, knowingly, fix their uncriticized doctrines as deeply as trauma or shock would. Capitalism and militarism thus lay bare the intense power of these techniques which, in turn, uncover the susceptibility and weakness existing in every human being, including the social or corporate leaders. This reveals the origin of vicious circles of manipulation and oblivion from which not even the high spheres escape. This composite phenomenon

represents the reason why the self-awareness movements all proliferated in the late 20th century and even (or especially) the most obstreperous leaders pursue self-criticism, an occurrence observed by Gilles Lipovetsky:

Simultanément à la révolution informatique, les sociétés post-modernes connaissent une «révolution intérieure», un immense «mouvement de conscience» («*awareness movement*», [...]), un engouement sans précédent pour la connaissance et l'accomplissement de soi, comme en témoigne la prolifération des organismes psy, techniques d'expression et de communication, méditations et gymnastiques orientales. La sensibilité politique des années soixante a fait place à un « sensibilité thérapeutique »; même les plus durs (surtout eux) parmi les ex-leaders contestataires succombent aux charmes du *self-examination* (Lipovetsky 1983: 60).⁷⁴

On the other hand, one of the main agents in *Paprika*'s plot remains the existence of doppelgangers or avatars, a hyperbolized allegory of a part of the self that the individual is incapable of controlling. These avatars (as in Stephenson's *Snow Crash*) represent the person's emissary in the chaotic cyberspace that is constructed by the collectivity of human minds, and embody a paradoxical alien-other of the self that is all at once an outsider and a personal element whose damage or oppression confronts his own possessor. In other words, the losses or misfortunes of the person's avatar advise the self about his own vulnerability and/or potentials. The subject's doppelganger is a powerful-powerless puppet whose mental capabilities enable him/her to perform plucky exploits, while, at the same time, is prone to domination and control. With this, *Paprika* reveals, if not the double nature of the self, a

74 Simultaneously to the computer revolution, the postmodern societies knew of an 'interior revolution', an immense 'consciousness movement' ('awareness movement'), some unprecedented enthusiasm about self-understanding and self-realization, as indicated by the proliferation of psychology organisms, expression and communication techniques, oriental meditations and gymnastics. The political sensitivity of the sixties gave way to a 'therapeutic sensibility'; even the toughest (especially them) anti-establishment ex-leaders surrendered to the charms of 'self-examination'. (My translation).

multiplicity of facets that construct a complex individual, an ancestral composite that since mythical times has designated the versatility of the human psyche.

The multiplicity of the mind is accentuated even further by the nature of the field in which it is explored. As in *Neuromancer*, the oneiro-space depicted in *Paprika* represents “a consensual hallucination” (in Gibson’s words) built by means of decoding the significance of the symbols that the oneironauts face when they wander through this unstable ground. The multiplicity of the subconscious domain depicts personality as a series of uncontrollable, discrete and highly symbolic scraps of information or scenes, all assembled in a film-like sequence that provides it with meaning. The constant contact of such scenarios establishes an illusion of continuity at the time that their interconnection creates ever more complex meanings and narratives, thus extolling the postmodern essence of the individual and the social, as stated by a scientist in the film: “The crossing of two dreams creates many more dreams” (Kon 2006). *Paprika*’s premise endorses and accentuates Bear’s thesis on the multiplicity of personalities or routines that build identity, but the anime film goes one step further by signaling the vulnerability, discreteness and unconnectedness of the particles that piece together identity, accentuating the lack of absolute signification that only the illusion of continuity provides.

In Bear’s novel, Goldsmith’s mind is described as a series of unconnected significant components unified in an encompassing linear sequence that settles the meaning of each of the parts by pushing them into a grand narrative. This metadescription (metanarratives and grand narratives are usually condemned by postmodern scholars) is directly responsible for degrading the true signification of each single significant particle, a bias that prevents the subject to fully grasp their function and meaning. The same is true for *Paprika*; here, the postmodern parade of

ancient and modern symbols that invades the city assemble an unintelligible discourse that only a grand narrative can explain within one single theory and not as a multiple collection of symbols. The unintelligible sequence of dissociated representations allegorizes the detached and disconnected nature of hyper-informatized individuals and societies.

The fact that, in the film, dreams and reality merge into one underscores the homologous nature of both, as well as the symbolic discrete meaning of their components. The symbols that constitute the totality of a society or an individual lack a final meaning, and although they form an undifferentiated continuum, a heterogeneous collection of images, they also produce a sensation of instability and fissure within the individual or the social mind, inasmuch as the parts are understood as a whole but not in their individuality. By the end of the film, the oneiric figure of the Chairman, a villain that embodies an imperialist, narcissistic anomaly, is slaughtered by Paprika, the embodiment of a postmodern subject. This description allegorizes the triumph of the postmodern for over the metanarrative. In this manner, *Paprika* endorses the application of a particular theory to the study of a specific phenomenon, as opposed to the imposing, biasing views of the grand narratives that hinder the progress of science.

The glossy and flamboyant style of this film, especially the turbulent parade of psychedelic figures, makes reference to the illusion provided by amusement parks, as Baudrillard suggests. The exuberance of the assorted procession and the illusion of continuity it produces emulate solidness, stability and happiness. The film then embraces the idea of the need for the 'other', especially the self as the other, the only critical stance to awaken from such an illusion; *Paprika* thus underscores the need for a segmentation of linear discourses (such as a movie or a grand narrative) in order to

comprehend the discrete significations of the parts, a posture that favors the study of mental units as the main strategy to understand the complex interconnection and the role of the subject within society.

In this regard, Michel Gondry's 2004 film *Eternal Sunshine of the Spotless Mind*, after a remarkable script by Charlie Kaufman, also describes the internal fracture of the psyche and the incapability to understand the 'other' due to the failure to comprehend the components that constitute the nature of the self and, by extension, of an interactive relationship. A film that depicts a cybernetic procedure that describes the mind as a solid geography which is open to exploration and also deletion, in *Eternal Sunshine*, perception and identity are outlined as the result of an illusion of continuity derived from, again, a series of concatenated scenes. The method employed in *Paprika* (the hyperbolic postmodern parade of unconnected symbols) also represents the main procedure in *Eternal Sunshine*, a collection of dissimilar scenes arranged in a sequence in which the only narrative thread is embodied by the subject, all the other elements remaining unconnected.

The film stresses the importance of mental landmarks that provide an anchor to counter the dispersed essence of the subconscious and of dreams. These markers stand as the subject's desperate method to gain control for over the diffuse, uncontrollable and perhaps incomprehensible nature of individual perception and the subconscious, and signals the social as an important fountainhead of such marks. The protagonist constantly makes reference to embarrassing or debasing events of his life as the anchor of the unconnected scenes that represent his life. These events do not necessarily illustrate successful or important moments in his life, but outstanding moments that break the sequence of irrelevant and senseless occurrences. The emphasis of the movie is on ordinary, if not dull, characters within a monotonous

environment accentuated by the perennial presence of wintertime and a bleak atmosphere. For such common people, simple events become the landmarks that furnish the uninterrupted flow of their subconscious perception with meaningfulness and a sense of continuity.

The unrelatedness and futility of the mental units that construct their identity drives these characters into devaluing them and into regarding them as disposable elements. Due to the lack of comprehension about the relevance of their mental components, the characters regard these elements as disposable elements that can be deleted from their psyche. This constitutes a consumeristic view which allows people to get rid of their onerous memories as if they were expendable commodities. The realization that there might be a more profound signification in the events of life compels the protagonist to consider every moment of his existence as a landmark within his psyche. His rash impulse to get rid of his burdensome memories, is overcome by a decision to await the opportunity for this moment to become a landmark by acquiring sense and signification.

The sense of discontinuity and mental fissure also represents the central premise of Tarsem Singh's 2000 cyber thriller *The Cell*, a film in which cyber-analysts are capable of reconnoitering and modifying people's mental structures by locating the source of a problem. The murderous protagonist undergoes psychological fracture and suffers from disjointedness resulting in antisocial behaviors and abuse, all derived from primal trauma and oppressive Oedipal experiences and parental mistreatment. Again, the hyperbolic figure of a murderer is utilized to examine the nature of the sociopathic departments present within humankind. The origin of the protagonist's mental rupture is heightened by the interconnection with other fissured minds, an occurrence that stresses the fact that either trauma or knowledge is derived

from a neural network in which its components influence one another. The dislocated perception of an individual plays the role of a catalyst, a manifestation that ignites even more disrupted perceptions on other individuals.

The film thus underlines the fact that the sense of fracture stems from struggling forces, here represented by a Manichaeian dualism as the source of this complexity, on the one hand, innocence, purity and fragility, on the other, a chain of ancestral ruptured personalities that affect an individual and form part of his/her personality, in this case embodied by the figure of the intolerant, repressive father. All the sources studied in this section (*Queen of Angels* included) seem to underscore not only the sense of fracture and discontinuity, but the corruption and degradation of the mental functions by mere contact with the postmodern perception of other individuals or by recurring atavisms. In *The Cell*, these ancestral inherited routines are associated with the perennial oppression of the weak, the father abusing the child, the adult subjugating women. An ancestral hereditary fear to oppression is then transformed in a violent, preemptive drive, a chain of evil that can only be broken by the analysis and diagnosis of the specific mental unit that corrupts the totality of the subject.

For therapeutic purposes, all these sources acknowledge the recognition of corrupted mental units, but mostly, the modification of deep-rooted behavior, while the solution for this is a measure as drastic as the phenomenon that originated it. For this end, Christopher Nolan's 2010 oneiropunk film *Inception* proposes the induction of external concepts in the mind of an individual in order to counter the deterministic powers that govern the psyche. In this film, another Oedipal narrative dominates the decisions and life of a corporate CEO whose father has imposed strong decisive conducts in him, thus demeaning his efforts and decisions as an individual. The ideological killing of the father is taken as the natural process of rejuvenation of the

corrupted mental components. In the film, the ‘inception’ of behavioral components is finally discarded as a viable solution to the oppressed plight of individuals; instead, it is the figure of the ‘other’ (derived from such implanted ‘artificial’ induced mental scenarios) what compels the individual into self-awareness.

The most radical example is given by the death of the protagonist’s wife, a woman who is finally liberated from the dreamworld she has inhabited for a long time by means of a psychic ‘inception’. Her conviction that reality is a dream leads her to kill herself in order to awaken from sleep. A Calderonian premise⁷⁵ (which refers to life as dream and death as awakening) is here retaken as an allegory of the cycle by which some mental units expire in order for healthy ones to thrive. The failure of the first ‘inception’ process lies in the fact that the protagonist’s wife never develops a sense of reality based on the detection of uncorrupted mental units.

On the other hand, the inception on the CEO’s mind succeeds in that he becomes aware of his own plight by being confronted with altered patterns and with the determining atavisms derived by the contact with the others (his family included). The final ‘incepting’ operation involves a double objective, on the one hand, to liberate the CEO from these ancient constraints and, on the other, the inception of psychic units in the minds of the members of older generations in order to understand and ‘hack’ them by implanting external mental components as strong as the primeval ones.

All these sources then aim at the fact that the mind is constructed by a disconnected collections of experiences that the individual finds difficult to comprehend due to the discrete symbolic essence of each mental unit; the failure to

⁷⁵ Calderón de la Barca’s play *La vida es sueño* suggests a correlation between sleep and captivity; to die signifies to awaken and leave the material world in order to enter a divine world of ideas.

recognize this is described by these works as the source of anxieties and neuroses. Thus, the recognition and transformation of such corrupted units either by substitution or deposition, is the key to the liberation from such deterministic powers and atavisms. The identification of inherited ideologies and trauma forms part of the solution of the perennial conflict that young generations develop against the older ones. In this sense, Oedipal narratives usually encompass such generational disputes; yet, to counter such composite schemes, these sources propose the use of computer technology as an interactive tool to explore the mind and to debunk the influence of constraining hereditary preconceptions, all associated with a complex world that was not constructed by us but given to us as an imposition.

Nevertheless, more specifically, these works propose the detection of the axioms, the littlest components that constitute the continuum of human cultures, the psychic units that dictate behavioral patterns (like fear and trauma) and which, more than other greater social phenomena (like governmental corruption), represent the cause of many of the actions and decisions made throughout human history. Once more, science and computer technology constitute the principal means explored by these authors as the methods of diagnosis, prognosis and solution of the intricate psychological problems of humankind, most of which have a direct role in the development of history. Yet, the fact that all these authors aim at the description of a connection between minds, a mental network, implies that not only identity is composite and influenced by the people that surround a subject, but that the impact of others is carried out in a neural manner even by distant cultures, individuals and actions. A complex mechanism such as computer technology is then the only feasible means for the study and solution of the composite problems that constitute the human

mind and the interrelations that are affected by the behavioral profile of the individual.

Conclusions

All the works studied in the present dissertation include one way or another the presence of a genuine cyberpunk framework which describes dystopian backdrops, deleterious technologies and pervasive corporations. Cyberpunk appears to be present throughout the body of such works, showing a degree of fatalism and determinism, and exposing the insidious influence of technology in diverse social circles. Postcyberpunk, in contrast, presents both a technophilic and technophobic stance at a time, with no prejudice toward any of these extremes, and introduces as many deranged and sordid characters as positivistic enthusiasts that take advantage of their cybernetic environment in order to ameliorate the status quo or their own personal condition.

In this regard, more than establishing dialogue with cyberpunk, postcyberpunk examines the evolution of the themes that form part of the former, but also includes a great variety of issues overlooked in the cybernetic narratives from the 80s. The results of my analyses of the selected texts reveal that the most radical metamorphosis occurred within the descriptions, the uses and advantages of computer networks, cyberspace, virtual realities or cybernetic simulators. Whereas in cyberpunk webs and networks were directly associated with money, consumerism, economic control and abuse, postcyberpunk displays a diversity of grids and matrices, which, in turn, make use of a variety of technologies such as nanotech, wetwares or cybernetic mindscapes, all of them unorthodox scenarios that search for multiple objectives other than the pure financial.

The alternative models of cyberspace in postcyberpunk examine a myriad of elements of which the most important is cognition. Neal Stephenson's *The Diamond*

Age proposes a kaleidoscopic context in which cybernetic networks originally resemble cyberpunk's oppressive scenarios; nonetheless, as the narration unfolds, multiple other purposes are explored, creating a cognitive atmosphere. The cybernetic networks associated with leisure and entertainment are transformed into didactic fields by which people come into direct contact with cognitive situations. In addition, nanobiological webs (wetwares formed by the combination of nanomachines and humans) intend to build a gigantic consciousness by which socialized scientific inventions come into existence. Finally, atom streams are directed into common households to feed molecular assemblers with pure particles in order to create domestic appliances, food, medicine and clothes by arranging the atomic structure of these objects; the aim of this socialized network is then to generate welfare and collective benefits. My analysis of Stephenson's novel show the ambivalence brought about by these technologies insofar as the increase of consciousness entailed by the development of cognitive simulations on the one hand increases consciousness, defends liberty and encourages social development, but, on the other, demands a greater economic productivity from people, increases manipulation and buttresses the power of patriarchy and of oppressive governments.

On the other end, Greg Egan's depiction of cyberspace in *Permutation City* also presents deep roots in cyberpunk's financial foundation; nonetheless, his contributions constitute a radical shift in our understanding of computer technology. His 'virtuality-philia' and his contempt toward materiality allow him to explore the properties of computer-generated environments in order to produce cognitive simulators. Among the contributions to the evolution of cyberspace are the creation of biochemistry simulators, retreats for immortal disembodied subjects, computer-generated universes where virtual life-forms swarm and evolve, and weather

predictors; the main objective of these simulators is to create colossal e-libraries, collective minds and social perceptive bodies. My analysis of the virtual realities and cognitive worlds in Egan's novel reveals that this novel attempts to confront the 'new' behaviors of man through the examination of old myths, all contained in the cognitive simulations he describes. Other considerations uncover the conflict derived from the adaptability and new paradigms proposed by the new human generations in contrast with the inability of the elder generations to adapt to changes and evolve. The scientific simulations described by Egan, according to my analysis, on the one hand represent a method of experimentation and observation, but, on the other, they stand as rigid models that hinder the progress of science in that they provide erroneous results.

Greg Bear's *Queen of Angels* also presents an initial classic cyberpunk setting where computer networks serve as commerce managers, transport controllers, financial supervisors and information keepers. Yet, like in the aforementioned sources, this backdrop is complemented by the beneficial uses of computer and nanotechnology. Diverse cultural phenomena are related to computer networks; literature and video downloads, information storage and psychoanalysis guidance occur within cybernetic grids, as well as space exploration and the creation of artificial intelligence. Yet, the most important contribution of *Queen of Angels* is the comparison of computers with the mental structures of a subject. The mind is regarded as a vast explorable cybernetic field by which archetypical and mythological units can be examined. Furthermore, nanotechnology becomes the implement (in the shape of embedded wireless interfaces) that interconnects the psyches of several subjects.

In diverse narratives the mind is identified with a recondite yet perceivable compound of cryptic information that comprises old and new psychic patterns derived from social interaction or from an individual's experience. The 'oneirospaces' describe in these sources constitute the ultimate allegory of the fusion of technology and human nature, revealing the perennial influence of the former in the development of perception and culture. My analysis of the text reveals that these 'oneiric' or mental networks attempt to define the identity of an individual, to which the answer lies on the multiplicity of forms and information contained in the psyche of the individual and which describes our current personalities as postmodern and composite. Furthermore, my examination of Bear's text shows that the interconnectedness of our minds is associated with the intertwinement of the most profound, delicate and vulnerable component that constitute our selves, the subconscious, the ground that contains the information that builds the self and which is interfaced with the mental content of others in a neural and atavistic manner.

A final contribution to the progress of cyberspace is portrayed in Carter's *The Fortunate Fall* and Ellis and Robertson's *Transmetropolitan*, both of which introduce cyberspace as a ground where socio-political information is broadcasted as directly and objectively as possible. The two works extol the role of computer technology in the dissemination of critical information and make use of multilayered networks capable of transmitting manifold signals from diverse regions in a neural manner. My analysis reveals that, although they represent a powerful weapon against institutional control, these informational webs are also prone to censorship, repression and manipulation, which represents a constant dialogue with the traditions of cyberpunk. Another analytical contribution in this regard indicates that the manner in

which information is distributed among the postmodern large populations described in these works influence the worldviews and, hence, the identities of the modern man.

The analysis of these works reveal that postcyberpunk's descriptions of cyberspace all constitute a type of alternate, defamiliarized yet utterly beneficial heterotopia, a field that fulfills the figure of the 'other', another space that challenges people's views and expands their horizons by means of constant ideological confrontations. The key element that constitutes these networks are specialized mechanisms of cognition whose ultimate objective is the creation of richly informed and critical societies, ether in the form of conscious mega-organisms or as enduring conglomerates whose focus is the perpetuation and evolution of knowledge.

On the other hand, self-awareness and identity also constitute the concern of several works. The problems of personality and identity reflect a degree of evolution from cyberpunk, a genre that approached these questions in a simplistic manner. For the cyberpunks, identity equals a collection of memories or the contents of the mind, a discrete element that can be severed from the body and uploaded into computers, robots or networks. Nevertheless, for the postcyberpunks this oversimplified statement seldom reveals the genuine nature of identity; instead, they explore different situations in order to clarify these issues.

The conclusions are obviously not final but the debate aroused in the works provides us with an edifying approach to the theme. There are innumerable elements that, according to these authors, participate in the construction of identity; for postcyberpunk memories are rarely taken as the sole raw material of personality. A person's gender, the body or the union of the physique and the mind are recognized for some (Richard Morgan or Egan) as important constituents of identity. In contrast,

for Bear, our personality is deeply influenced by others' experience and knowledge, as well as by the role of regional or national customs, evinced in his preoccupations in regard to national difference.

Other works indicate that the capability for making personal decisions shapes identity in that, consciously or not, we are the product of a struggle of our self-determination against social practices and familial impositions. Our decisions, correct or mistaken, constitute the process by which our lives take a determined path, as shown by *The Matrix* or *Queen of Angels*, both of which picture a struggle of individuals against the control of institutions as the first step to generate a sense of identity.

On the other hand, the experiences and the information extracted from culture and society also fashion identity in the sense that our historical backgrounds, archetypes, mythologies and communal knowledge determine the course of nations which, in turn, will dictate a national behavior or a set of common traits comprised within the syncretic traditions of peoples. *The Diamond Age* and *Queen of Angels* pay special attention to historical circumstances and their influence on the actions and reactions of the characters. In these works, mythologies mingle with history, while a conscious description of historical recurrence is associated with determinism and the impact of deep-rooted ideologies upon nations and individuals.

In this manner, wealth (or the lack of it) also represents an indispensable component of identity in times of digital capital, especially since the purchasing power molds the views of individuals, forcing them to reappraise the definiteness of death or other social hindrances. In *Permutation City*, the wealthy are preoccupied with transcendence and death, both themes that seldom form part of the vision of the

poor insofar as their focus is rather on their pecuniary plight. Moreover, materiality and especially technology, as suggested by the Actor-Network Theory, play a decisive role in the molding of individuality or the consciousness of entire nations. Implements and devices influence the vision of societies, while, at the same time, the standardization generated by corporate ideologies compels subjects into a philosophical debate about identity and freedom. Computer networks and bureaucracy also influence the legal status of individuals and thus shape their social identity; personality in the age of computer technology is built by cyberspace data and prone to obliteration, as exemplified in the film *The Net*.

In this sense, as a result of my observations we can also conclude that materiality, as a mirror image of culture, becomes a postmodern collection of ideological items that pervade the individuals' intimacy and shapes their likings, views, opinions, desires and aspirations. The films *Eternal Sunshine of the Spotless Mind* and *Paprika* both underscore the importance of a postmodern collection of images, experiences and mental structures as the primary formant of the identity of a person, thus revealing the nature of human 'individuality', based on a variegated series of ideas derived from diverse objects and phenomena.

On the other hand, postcyberpunk's fantasies about the construction of global minds, mega-organisms or hive bodies, although part of beneficial programs, also represent an obstacle for the healthy development of identity insofar as individuality is threatened and personal ideologies function only as part of a whole; hive bodies epitomize unstoppable apparatuses that require the absolute concentration of a person's mental energy and an accurate performance within these complex machineries. This sensitive issue plays a decisive role in the primary sources analyzed in this dissertation, inasmuch as they all describe settings where the characters lose

their free-will and personality by being absorbed by a communal program or a socializing assembly, as exemplified by the Drummers in *The Diamond Age*, the Elysians in *Permutation City*, the therapied in *Queen of Angels* and the 'bioroid' in *Appleseed*. In these works the perpetuation of consciousness and knowledge as well as the maturation of entire nations constitute a deterrent of the formation of individual distinctiveness and personality.

Another constant of postcyberpunk, an inheritance from cyberpunk, refers to descriptions of the struggle between free-will and institutional impositions. In highly technologized societies, determinism represents perhaps the main element of institutional control. Technology then serves a double-edged purpose, one in providing the elements for oppression, the other, in allowing the dissemination of information and communication, a factor that generates a critical consciousness and a new informed social class whose main focus is on freedom of thought and action. Postcyberpunk then describes relativistic atmospheres in which information is used as an oppressive tool and as a liberating force that enables masses and individuals to counter the effects of their mechanized environments.

For this purpose, the main figure of cyberpunk, a hacker, is taken again as the central motor of the liberating endeavors of the lower-classes in postcyberpunk narratives. To 'hack' becomes a synonym of decrypting the inner function of objects and mechanisms, including corporations, governments, social conglomerates, individual psyches and nature itself. As opposed to cyberpunk, postcyberpunk's hackers seldom intend to sabotage a corporate data-base; the new hackers rather opt for the unraveling of the mysteries of their surroundings. While *The Diamond Age*'s hackers focus on education and on the development of socialized projects, *Permutation City*'s hackers attempt to build a non-governmental scientific simulator

that will clarify the enigmas of evolution, nature and existence. On the other hand, the hackers in *Queen of Angels* are obsessed with the scrutiny of the mind and mental structures. Decoding, the basis of hacking, is an element first tested in cyberspace exploration and later extrapolated onto social domains and natural environments, as exemplified in *The Matrix*, a film in which the major hacker is capable of understanding the functioning of our universe by means of the expertise garnered in cyberspace.

One of the main tasks of a hacker is, then, to distinguish the artificially generated from the real. In cyberpunk, the virtual is usually mistaken as real and individuals become overwhelmed and bewildered by a reality they fail to understand. Yet, in postcyberpunk the artificially generated (either in virtual environments or by means of nanotechnology) constitutes an element that aids these hackers to scrutinize and understand the nature of our universe and of our techno-social atmospheres. Simulations, which in cyberpunk acquire alienating characteristics, serve as a field of study and experimentation without the habitual damage to nature.

The results obtained by these scientific hackers lead postcyberpunk narratives to reconsider the constitution of our universe in regard to the type of technology to which it can be compared. In other words, since Cartesian times until the advent of computer networks, including Industrial Times and pre-computer technologies, the universe has been compared to clockworks, steam-machines, mechanic calculators, electronic computers, cybernetic networks or series of specialized programs with either minuscule or monumental functions. The vision of scientific hackers in postcyberpunk is then directly responsible for the cybernetic description of the universe and living entities, and, in contrast with cyberpunk, the manipulation of

nature is now a socialized objective, and not only the disruption of databases and corporations.

For this purpose, postcyberpunk hackers, as in cyberpunk, make use of virtuality as a starting point in the modification of their environments. However, in addition, it is nanotechnology the most common tool employed in the alteration of the material world and of social structures. The majority of the sources analyzed in this dissertation pay special attention to nanotechnology as the ultimate form of controlling, taking advantage of, and understanding our world and our mental and social components. The fusion of nanotechnology and computer technology become the major subject in postcyberpunk insofar as both stand as a means to analyze and comprehend our surroundings and as a channel to modify our marvelous although determining universe. As a usual procedure in postcyberpunk, nanotech is described as much as a beneficial element as a detrimental factor; nevertheless, it is the power of the symbols and allegories that derive from the presence of nanotechnology what constitutes the main contribution of postcyberpunk in this regard. One of the most relevant examples of this is the description of the universe as a series of interwoven networks formed by minuscule elements that perform precise tasks. The accretion of nanoparticles originates then a growing agglomeration of elements into ever more complex networks, a system that describes the composite nature of our societies and our world.

Finally, the diverse elements analyzed in this dissertation and the results of the comparative analyses of the sources approached by this work enable me to conclude that postcyberpunk stands as an independent and contributive genre of science fiction whose constitutive features provide the ground for an unbiased examination of modern technology and of contemporary societies. Postcyberpunk then constitutes a

strong genre that creates powerful allegories that allow us to understand our own nature and our position within history and the universe. The contributions of this dissertation can be comprised not only within the field of technology and in regard to the prevailing machinery of an era (like nanotechnology and neurotechnology in this case), but in the way such technologies help us understand social evolution and the mistakes and the good choices made throughout human history.

Postcyberpunk, more than a literary genre or a trend, is an *attitude*, a way to describe the influence of computer technology and our complex societies by means of the description of inventions that change our worldview. Postcyberpunk is not exclusively technophobic (like cyberpunk), but is not technophilic either; it is, rather, a way to describe the influence of technology without the biases and the apprehensions of the cyberpunk generation. Postcyberpunk also makes use of profound examinations and updates of the ancient myths that once confronted humankind with its own nature, and presents those early stories in new defamiliarized and radical settings in which the virtues and defects of mankind are put to the test in order to question the real extent of human evolution. Technology is then used as a means to challenge and debunk the noxious ideologies that drive our current societies and also as a means to introduce new paradigms that lead humankind to a more beneficial future. In this sense, the contributions of the present dissertation include a set of analyses of the cultural structure of our globalized world and, more than an approach to genre studies, the focus of my study of cybernetic narratives is on the variety of difficulties that the mechanization of society entails and the new paradigms in the fields of cognition and cultural studies facilitated by the new models of interaction between technology and humankind. In this regard, as new technologies are developed and new narratives venture to create new narratives about them and

their influence, the present dissertation can function as a point of reference to explore the new myths and accounts derived from the confrontation of humanity with those instruments that have the power to change our worldviews.

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