

THE AGE OF *THE DIAMOND AGE*:
COGNITIVE SIMULATIONS, HIVE WETWARES AND SOCIALIZED
CYBERSPACES AS THE GIST OF POSTCYBERPUNK

Rafael Miranda Huereca
Universidad Autònoma de Barcelona
ramihuereca@yahoo.com.mx

Cyberpunk has been copiously studied and accurately defined, while one of its spinoffs, postcyberpunk, has barely been approached as an independent genre. It is my intention in this article to provide a ground for study of such a category by scrutinizing the evolution of the shapes and significances of the concepts of cyberspace, wetware, networking and nanotechnology as some of Neal Stephenson's *The Diamond Age* central concerns. Themes such as patriarchy, feminism, reproduction, education and social evolution are approached, according to my view, by postcyberpunk in a way classic cyberpunk did not.

Keywords: cyberspace; post-structuralism; hive wetwares; cognitive simulations; technophilia; patriarchy

LA ERA DE LA ERA DEL DIAMANTE:
SIMULACIONES COGNITIVAS, WETWARE EN ENJAMBRE Y CIBERESPACIOS
SOCIALIZADOS COMO LA ESENCIA DEL POSTCYBERPUNK

El ciberpunk ha sido copiosamente estudiado y definido con precisión, mientras que uno de sus derivados, el postciberpunk, ha sido rara vez analizado como un género independiente. Es mi intención en este artículo el proveer un terreno para el estudio de tal categoría por medio del escrutinio de la evolución de las formas y significados de los conceptos de ciberespacio, wetware, redes (networks) y nanotecnología como algunos de las preocupaciones centrales de La Edad del Diamante de Neal Stephenson. Temas como el patriarcado, el feminismo, la reproducción, la educación y la evolución social son planteados, según mi óptica, por el postciberpunk de manera diferente a como lo hizo el ciberpunk.

Palabras clave: ciberespacio; postestructuralismo; wetwares en enjambre; simulaciones cognitivas; tecnofilia; patriarcado

1. Introduction

Burgeoning studies have focused intently on the definition of cyberpunk, describing it as the 1980's paranoid and baleful surmise on the future of humankind among computers, technology and corporations, or, in Sabine Heuser's voice "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). Cyberpunk's centerfold novum, cyberspace, turned into the most prominent symbol of globalization, digital capital, control and dystopia, being rechristened over and over as it was provided with different specs of personality and functions: LARPs, nets, grids, metaverses, paraspaces, matrices, cyberlinks, etc., different names for different (but ultimately and paradoxically the same) purposes.

Nevertheless, these new universes showed an evident tilt towards pessimism and paranoia: William Gibson's portrayal of imminent 'body anxieties' ("[the] flesh the [console] cowboys mocked" [1995: 3]), an avidity for disembodiment and a spurning of corporate dominance shown in the *Sprawl* trilogy, Bruce Sterling's representation of corporate terrorism and data piracy (for instance, his 1988 novel *Islands in the Net*), John Shirley's depiction of neo-fascist networked regimes (the *Eclipse* trilogy), Rudy Rucker's analysis of freewill and manipulation through mind transfer-downloading into android systems (*Software*), Pat Cadigan's milieus where the obliteration of the boundaries of the real and the virtual takes place (*Mindplayers*, *Synners*). Similarly, as well as the cluster of films that accompany this period (*Blade Runner*, *Terminator*, *Robocop*, *Tron*, *Brainstorm*, *Tetsuo*, *Hardware* [M.A.R.K. 13]) revolve around dystopias and paranoid oppressions, becoming the center of attention of critics due to their remarkable novelties and their approach to long forgotten issues that cybernetics has come to confront and expose.

Postcyberpunk, on the other hand, never garnered an enthusiastic attention and, to date, it has been neglected as a genre, although its relevance demands a profound definition, especially because of its pivotal contributions to the topoi that cyberpunk overlooked such as reproduction, feminism, social progress, biopolitics, familial structures, education, ecology, psychology and health. While cyberpunk was stuck with classic Manichean structuralist dualisms (the oxymoron itself denotes it: *cyber* vs. *punk*, high-tech vs. low life), postcyberpunk suggests relativism, multisignificance, an unbiased assessment of the power of technology and a poststructuralist-oriented discourse that refuses to explore the cybernetic phenomena with a binary simplicity. In postcyberpunk biotech, technocracies and transhumanism usually mingle with cyberterrorism, dystopian scenarios, disembodiment or enhanced cyborgs, thus including, if not departing from, cyberpunk premises, then evolving into complex settings.

It is clear, however, that postcyberpunk attracted more controversy than critique, mainly because it was regarded as a mere variant to cyberpunk and not as an autonomous genre, but as a 'shallow' offshoot with irrelevant contributions, although, conversely, it has been eulogized and studied by some critics (for instance, Lawrence

Person) as the new proposal of science fiction that assimilates more objectively the current state of affairs and the impact of cybernetics and technology in modern life. Postcyberpunk, in my view, constitutes the most important recent label that approaches the sensitive philosophical issues that a technologic status quo like the current one exposes, in which people cope with the overwhelming and advantageous properties of the digital and nanotechnologic realms, without the gloomy partiality of cyberpunk.

Yet, although postcyberpunk became consciously influenced by nanopunk and biopunk, thus shaping the social ethos and life expectancy through their pivotal contributions, the evolution of cyberspace – initially depicted by cyberpunk as a dystopian venue for control, financial rigor, disembodiment and fragmented perception – was perhaps the key element in the concoction of this nascent genre, since, as the hypothesis for this article reflects, cyberspace became transmuted into a field in which biopolitics, personal growth, health-care, information and social security gain progress, as presented in a variety of sources such as Greg Egan's *Permutation City* (1994), Bruce Sterling's *Holy Fire* (1996), and Raphael Carter's *The Fortunate Fall* (1996) as well as Masamune Shirow's franchise *Ghost in the Shell*, Katsuhiro Otomo's film *Roujin Z* (1991) and Shinji Aramaki's *Appleseed* animes. Another tepid example of postcyberpunk is represented by the short story collection *Rewired: The Post-Cyberpunk Anthology* (Kelly and Kessel 2007), which makes a diffuse effort to provide a clear definition of the fledgling genre by encompassing sundry proposals and dispersing its focus on vague topoi such as posthumanism, postapocalyptic scenarios, virtual realities 'of sorts' and depicting ambiances that appear *after* cyberpunk rather than as its evolution.

Nonetheless, perhaps the uppermost implication of this metamorphosis relates to the fact that cyberspace became a series of cognitive simulations in which scientific experimentation and accurate simulacra take place without further repercussions. An example of the seminal power of cyberspace as a cognitive simulation is shown in the 1992 cyberpunk film *The Lawnmower Man*, in which a virtual reality aids a mentally handicapped man not only to cope with his disability, but to awaken dormant preternatural capabilities that turn him in an uncontrollable super-being. The pessimistic cyberpunkish essence of this film leads to the destruction and the demonizing of such a technology, contrasting with the novel scope of postcyberpunk, which would rather ponder over diverse options before crushing technology to a pulp.

In this regard, by 1995, Neal Stephenson's novel *The Diamond Age, or A Young Lady's Illustrated Primer* became the clearest example in which cyberspace reveals an evolution from a dystopian atmosphere to a more humane ground, serving as the basis for the development of useful technologies and the amelioration of the self, yet also including cyberpunk's approaches such as draconian control and corporate dominance, and by this, the book turned into a generic paragon of what postcyberpunk should be like: a confrontation of old mistrustful views with refreshing ideologies and unprejudiced analysis.

2. Cognitive simulations

A novel set in a post nation-state Shanghai in which nanotechnology suffuses its atmosphere and permeates the physiques and psyches of its denizens, *The Diamond Age*'s plot departs from a classic cyberpunk tenor that teems with cyborgs, cyberweapons and slummy characters, and soon transfigures into a complex techno-social intertwinement in which governmental technocracies from diverse factions (the Victorians, the Chinese, the Nipponese and the black community) exert biopolitical policies upon their communities. In this way they outline a modern-day environment where technology is both beneficial and oppressing at the same time.

The novel also presents sundry complex electronic networks (cyberspaces of sorts, molecular assemblers, hive-mind wetwares) that acquire multiple significances and roles within society such as sophisticated entertainment, basic education for children, the exchange of privileged information, the forging of basic commodities such as food, medicines and clothes among others. One of these grids is the *Ractive* network, a purveyor of interactive adult entertainment and a basic Sesame-Street responsive type of education for children, a type of cyberspace to which people jack-in in diverse manners: with the aid of eye goggles (as in Stephenson's *Snow Crash*), smart paper (flexible electronic displays), mediatrons (3D-image projector bulging from electronic walls), or attend specialized parlors and theaters, while *ractors* or interactive actors require 'tat-grids' (skin embedded nano-prod tattooed lattices), which turn them into actual interfaced cyborgs.

Such a cyberspace, a vestige from classic cyberpunk, constitutes the venue where the anonymous avatars of such *ractors* entertain paying customers by fulfilling their fantasies through realistic theatrical interactions (as in Cadigan's *Fools*), or where impetuous teenagers – like Harv the teenager – revive the bellicose cyberpunk spirit of immersive video games, a reminiscence of such films as *Tron*, *Brainscan*, *Nirvana*, *eXistenZ*, *Gamebox 1.0* and *One point Zero* or episodes such as 'First Person Shooter' (*X Files*). Yet, the evolution of this network is propelled forward when Victorian head honcho, Lord finkle-MacGraw, commissions a didactic tool (the eponymous Primer of the novel's title) intended to educate a selected elite to produce polymaths and leaders, and which would use the selfsame grid as the ractive network. Cyberpunk formulas dictate the presence of a rebel (John Percival Hackworth) who burglarizes and hacks such a device; although different from it, it is not financial data that is stolen from the unfathomable corporate circles, but an educational implement, a teaching device, a vehicle for the forging and trafficking of information, which evinces that knowledge and information represent highly covetable commodities.

The enthusiasm about the Primer reaches the other rivaling 'phyles', and soon the vying for such a gadget (implying a competition for education and information) constitutes one of the central plots of the book. A mixture of Marxist and Feminist theories can describe this struggle as the ideological rivalry for the seizure of the means of production and the conquering of equipment as another attempt to master, control and subdue any 'inimical' minority, as Cavallaro and Deborah Lupton explain:

'For their male users ... computers are to be possessed, to be penetrated and overpowered ... This masculinist urge to penetrate the system ... represents an attempt to split oneself from the controlling mother'. Yet once the user has jacked into the matrix (which, by the way, means *womb*), the dominant feeling is not a sense of absolute control but rather one of 'engulfment', induced by the architectural complexity of the matrix as a whole and by the local geography of 'the inside of the computer body' as 'dark, enigmatic, potentially leaky, harbouring danger and contamination, vulnerable to invasion'. (Lupton in Cavallaro 2000: 131)

Computers and cybernetics actually allegorize a modern scuffle for survival in a mechanized competitive world. Yet, as we deduce from the passage above, they appear constantly associated with the feminine, as they provide intellectual nourishment (information, advice, panoramas), but represent a desired passive field that can be penetrated, possessed and desecrated. This stands as the fundamental reason for which the female circles of Stephenson's book are given the task of exploiting and developing such a complex network: the male characters are depicted as ferocious entities obsessed with empowerment, political struggle, shallow entertainment and violent actions, whereas the female spheres, free from the virile competition, are assigned the roles of education, upbringing, guidance and intellectual nourishment, and by this, the novel becomes the staple of the evolution that characterizes postcyberpunk.

A trait already hinted at in *Snow Crash*, cyberspace can also serve as the 'information highway' (the librarian becomes an indispensable and handy tool within the plot of such a novel) and not only as a financial intercom, although it is education, or more specifically, knowledge that becomes emphasized by the data flux in the Primer network of *The Diamond Age*. Assorted techniques are utilized to push data in the users' minds to become eventually processed and transformed into knowledge: heuristics, simulations, interactions, puzzles, riddles, revisited myths, etc., to form part of the virtual theatrical performances that account for the ultimate aim of the Primer network.

The interaction between Nell (the protagonist) and her unacquainted governess Miranda, as a sample of what occurs with the Primer, is based on a series of simulations in which both characters must combine a myriad of resources in order to solve conundrums and practical situations, imitating real life in the same manner as training-simulators do. Staging is proposed in the book as one of the most effectual implements for affixing knowledge in learners, a method that combines classic empiricism with Piaget's constructivism, in which education focuses on accommodation (reframing knowledge) and assimilation (incorporation of new experiences), always guided and not imposed by adult facilitators.

In this way, the Primer instructors (all of them women, since such a contrivance was devised to be tested among them) learn to 'weave' their own costumes so as to fulfill their roles, as in ancient times when women forged their own disguises in order to please men by transmuting into whatever they requested. Such an innovative cyber-myth involves a circle of characters who blend computer technology with their customary thespian skills to build an alternative educational retreat. A correlation between computer simulations and the traditional role of women's self-woven disguises is a constant in cybernetics narratives, since both constitute a mimesis, a forgery of the

world, a Baudrillardian simulacrum, the possibility of learning from a phenomenon by replicating it, as Irigaray and Plant have already outlined:

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 ... she fits any bill, but in so doing, she is already more than that which she imitates. Woman, like the computer, appears at different times as whatever man requires of her. ... And, like the computer ... she ... can mimic any function. As Irigaray suggests '... she is – through her inexhaustible aptitude for mimicry – the living foundation for the whole staging of the world'. (Irigaray, in Plant 1995: 59)

The characters in *The Diamond Age* make use of computers and nanotechnology to simulate entire scenarios in which defamiliarized situations (as Shklovski noted) are shaped to produce enhanced versions of relevant, sensitive themes, surveying the successful manners in which humans acquire knowledge as well as the inadequacies of human deportment. Such staging techniques (magnification, defamiliarization, social representations) constituted one of the main trends of popular thought and knowledge from the late Middle Ages to the Baroque, when people explored, sauntered and gallivanted in different social strata from theirs, wearing disguises at carnival times and mimicking others' roles in order to learn from their *modus vivendi*, as Bakhtin states: "[A]ll were considered equal during carnival. 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). Stephenson's new version of cyberspace provides examples of such mimicry and techno-dramatic methods that efficiently expose defamiliarized situations:

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 (sic) it into an even perkier voice and made subtle corrections in her accent. (1995: 116)

Theatrical abilities are fully employed to supply situations in which learners will develop skills, expertise, street-smartness and logical/intuitive thought. Moreover, as Freud proposed, women weave their own disguises, mainly loincloths, to camouflage gender gaps and physical differences (Freud 1949). Nevertheless, in *The Diamond Age* the female characters merge their costumes (always related to technology) and the theatrical tradition of political satire to debunk patriarchal discourses. Examples from the novel blend simulations of revisited traditional mythologies and real-life-derived situations in which the characters (Nell in this case) must apply the abilities they learn in the Primer to either understand the fallaciousness of an ideology or to act correspondingly in a specific situation, as the following children's tale simulation reveals:

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. (Stephenson 1995: 192)

Satirists, mockers, debunkers, lampooners, impersonators, they all expose as much the beneficial aspect of a discourse as its falseness and bias. The assimilation of different roles and their contribution to the formation of a person's subjectivity constitutes a recursive mechanism that attracts the reflective construction of new perspectives and refreshing judgments, an autopoiesis (as Maturana and Varela observed) of memes and cultural references that performs as a producer of self awareness by observing the distinction between simulation and experience, as Sherryl Vint notes when she distinguishes the critical approach gained in the *Primer* from an autopoietic consciousness built by the confrontation of its advice and its application: "The *Primer* is what allows Nell to learn about things outside her day-to-day experience and thus gain a critical perspective on her experiences. At the same time, the gap between her experience and the *Primer* allows her to gain a critical perspective on the *Primer's* advice" (2007: 164).

With the simulations and mimicries from the *Primer*, Stephenson appeals not only to an information highway, but actually to a *knowledge highway*, a cognitive series of autopoietic networked simulations (namely, postcyberpunk cyberspaces), where data is intuitively, heuristically and empirically assimilated and transformed into intelligent ideologies, this being another contribution from the biopolitical policies that abound in the book. Its motto not only demands 'education for everyone' but rather 'quality knowledge for everyone'. The main mechanism of this simulation lies in its capability of teaching people how to read (decode) and write (or rather rewrite) an experience within the conscious self, with its entire set of implications and rules:

The parallel between making worlds in the *Primer* and making changes to the material world is located in Nell's insight that each world functions similarly to a Turing machine; each has a define set of rules that can be used to produce predictable results. Nell's ability to effect change in the material world is predicated on the fact that her insight allows her to understand and manipulate its rules. (Vint 2007: 165)

Such a positivist remark, i.e. *produce predictable results* (one of sociological positivism's goals is to explain and predict), and the combination of experience and scientific rigor have a basis on the modification of the sense of material phenomena and in a more powerful assimilation in the person's subjectivity than traditional lecturing education.

As a tool designed by men (like any other contrivance), the *Primer* is handed out to women – though unintentionally – by a trickster figure (a modern Prometheus) who conveys the secrets of the bumptious faux gods (corporate managers) to earthly humans, and who undergoes banishment from the divine spheres of the imperialistic powers: Hackworth (as his name posits) hacks the *Primer* and attempts to provide his own daughter with a copy of it in an effort to secure a better place for her in an uncertain future: "What was so bad about what he was doing? He was not selling any of the new technologies that Lord Finkle-McGraw had paid Bespoke [a software company] to develop. He was not profiting directly. He was just trying to secure a

better place in the world for his descendants, which was every father's responsibility" (Stephenson 1995: 78).

His audacious hacking actions incarnate a cyberpunk antihero-like archetype itself; nevertheless a slight change of discourse can be noticed, as it is known that such a genre refuses to approach reproduction, since, as Kevin McCarron states, "... the really *macho* aspect of cyberpunk lies in its complete lack of interest in biological reproduction" (1995: 270), and Hackworth, different from cyberpunk antiheroes, holds an enviable job, has a family and looks after his offspring, thus being rather closer to postcyberpunk than to the old school, as Lawrence Person suggests: "Far from being alienated loners, postcyberpunk characters are frequently integral members of society (i.e., they have jobs)" (1998). Furthermore he will become the key element for the social transformation of Shanghai, as he is captured by the underground rhizome society of the Drummers (a manipulated community that lives in a perennial state of comatose sexual fantasy) and will aid the development of the Seed technology, which, different from the monopolized Feed, will provide the Chinese tribes with a particle-stream that will supply Mater Compilers (molecular-assemblers) with atoms in order to forge food, clothes, weapons and sundry objects by configuring their molecules.

3. Hive Wetwares and Socialized Cyberspaces

The book also presents two vast hive-bodies that embrace the purpose of exchanging compressed information conveyed by millions of nanosites swarming in the individuals' bloodstream, passing from person to person by means of sexual intercourse:

... the most important swarm system remains the nanosites introduced into the human bloodstream in the Drummers' tunnels, which become the wetware of a biological computer. In the immense exchanges of information brought about through orgiastic and anonymous sex, it is hoped that self-organizing processes will provide the conditions in which an altogether new kind of Seed technology can emerge. (Johnston 2001: 235)

More than an organic computer, such interlaced wetware (the Drummers' network) plays the very role of a cyberspace, in which pieces of information are accreted and transformed to build up a massive intelligence or awareness, which, as the Neuromancer/Wintermute AI, exists as a suspended ghost-in-the-shell, although endorsing a social (not self-centered) purpose, thus becoming the key for the development of socialist inventions such as the Seed.

The other hive body presented by the book, CryptNet, bears a resemblance to arcane, secret organizations, a type of Freemasonry or infiltration agency that once constituted a tribe of its own, and whose purpose is similar to that of the Drummers: the transmission of information-laden nanosites from member to member via sex exchange. While the Drummers live in a perennial reverie, a resemblance of the mechanical, unconscious labor of the enslaved people connected to the Matrix in the Wachowski brothers films, CryptNet members are conscious and possess freewill.

On a first plane, this would present an inextricably link to the basics of cyberpunk, i.e. globalized controlling networks, which *The Diamond Age* refreshes by pushing these

wetware webs into the domain of socialist and cognitive fields. Andy Clark has also been aware of the potential of networks as agents in the complex process of self-controlled social evolution: “These external structures [symbolic and social-institutional] 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” (1998: 179). What Stephenson and Clark (as well as Thomas Foster, as we’ll see later) attempt to describe by these implications is a series of posthuman processes of the mind as it becomes an autopoietic, webbed hive being that, to an extent, controls its own evolutive and self-cognitive processes.

Thus, after Hackworth is sentenced to a ten-year reclusion for the theft of intellectual property (a process that forced him to become a double agent against the Victorians and to decrypt the Primer for the Chinese so that this phyle can educate a myriad of orphan girls) he is dispatched to the Drummers’ world. Such an action represents a patriarchal punishment which banishes him from the spheres of corporate power and deprives him of his most valuable attribute, his conscious, polymathic mind. As a sanction, he loses his identity and personality, becoming a faceless pawn (an allegory of fear of communism) in a gargantuan complex, stringently controlled by abstruse powers, thus incarnating a classic motif of science fiction and cyberpunk in which the cybernetic manipulation of a proletariat stands as the chief element of a ‘healthy economy’, as David Tomas posits, a wired relationship between the powerful and the powerless:

The human body is [, in the digital 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. (1995: 38, emphasis original)

From such a mechanized-labor and oblivion Hackworth will emerge after ten years only to realize he is a modern messiah who has unconsciously manipulated the mind of the Drummers in order to optimize their performance. He becomes a classic savior, initially dispossessed of freewill or choice, discovering in himself an unavoidable guide to his people, accepting his kismet, his karma (like *Matrix*’s Neo, Jesus or Buddha), and by doing so, he acquires a sense of meaning not for himself or his kin, but for a larger social body. He personifies the leader (a shepherd) of an unconscious mass of people programmed to carry out automated duties, but who will eventually re-attain freewill since Hackworth himself will negotiate a change of policy within Dr. X’s control-room (the Drummers’ master mind) by restoring their volition, for their task can only be thorough when they regain their free conscious lives.

On the other hand, Hackworth enters such a shamanic trance, similar to the logging into cyberspace, in which his body will remain passive while his mind brims with information, only to end up developing a patriarchal weapon, since the creation of the Seed technology will allow the elaboration of sophisticated weaponry (the most prominent tool of patriarchies) for the liberation of the Chinese phyle. The books depicts such a stratagem as an attempt to dissolve the Victorian monopoly, but by

doing so, it only magnifies the fierce competition among patriarchal forces, since it is by means of opposition and challenging that such a feud is intended to end, turning the situation in an endless and relentless strife that is repeated throughout history. It is not accidental that the Boxer Rebellion is carbon-copied in *The Diamond Age* in the shape of the conflict between the Victorians and the Chinese, becoming a pattern that exposes the inevitable struggle between oppressors and dominated, repeating itself over and over throughout time.

In addition, the issues related to Matter Compilers accentuate the perpetual concern of science fiction about male domination and arrogation of women's role in the creation of life by means of technology; as Huysen states: "The ultimate technological fantasy is creation without the mother" (Huysen, in Doane 1990: 164). Though a biopolitical measure (these devices provide food, clothing and health), the presence of public Matter Compilers and molecular streams within people's homes stand as the paramount desire for comfort and modernity; these appliances represent the quintessence of Marxian alienation, since the products no longer belong to craftsmen or to workers, not even to humans. The question of the correlation between technology and its circumstantial ideology is approached in the novel by a subplot in which estranged Chinese peasants will regain their ruling position in Shanghai when they are given the control of the new technologies that substitute the production of rice: the Seed technology will restore the link with the product and erase any trace of exploitation or dispossession. Dr. X, a philanthropist enmeshed in an unsolvable patriarchal dilemma, claims for the control on the Seed to counter the loss of spirituality once the West introduced its cryptic technology, and, unlike cyberpunkish technophobia, he does not demonize technology (an indispensable property in postcyberpunk narratives), but attempts to absorb its benefits by understanding its spiritual essence:

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 us the Seed. ... Rice was the basis for our society. Peasants planted the seeds and had highest status in the Confucian hierarchy. ... When the Seed 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". (Stephenson 1995: 432)

Stephenson's anti-imperialistic inclinations attempt to include, not exclude, the spirit of technology and, through Eastern models, assemble a showcase for the West to assimilate the cybernetic advances that cyberpunk so intently tried to annihilate, especially when the innovative gadget (a cloning machine, a ghost in the machine, an android, a cyber-weapon) runs amok, malfunctions, is given the wrong use or turns incomprehensible (as happens in *M.A.R.K. 13*), becoming an escape-goat for the frustrations of humanity and a candidate for destruction. Nevertheless, the technophilia shown in *The Diamond Age* stands closer to an unconscious apology of patriarchal

schemes than to egalitarianism, since the main purpose of technology remains the defense of capitalistic interests, especially when the first uses of science and knowledge aim always, in futuristic narratives (and real life as well), at the exploitation and seizure of potential markets and resources. Nevertheless, by whatever means this novel may be analyzed, it becomes clear that Stephenson's intention is focused at safeguarding the essence of technology (as a prop to modern welfare), and refusing to sabotage the evolution of machineries.

This is the reason why CryptNet turns into such a relevant element – even though the novel refuses to underline its importance – for it represents the conscious side of the innate perpetual correlation between technology and capitalism. It incarnates the chosen elite that manipulates ideologies, philosophies and propaganda, steers the reins of control, and whose illusion of choice resembles that of Neo's clique in *The Matrix*. In such films the Merovingian, a disparaged version of a paranoid, controlling institutions, (e.g. the Catholic Church), states it clearly: "Choice is an illusion created between those with power and those without" (Wachowski and Wachowski 2003). CryptNet members contrast with the Drummers, as the former appear to control their own actions and the interconnection between affiliates, although the momentous project looming around them (the development of the democratized Seed) dictates their actual moves and dispossesses them of any real decision. While the Drummers represent mechanization, CryptNet embodies rationalization; neither of them stands any closer to freewill or choice, as they are both obliged to carry out their respective tasks.

In addition, if the people connected to the Matrix (in the Wachowski's franchise) symbolize a blind, motionless working mass who exchanges its force of labor for an illusion of happiness based on consumerism, the Drummers' society might represent an alienated proletariat ordained to perennial sexual activity as an allegory of their accelerated, inevitable penchant for consumption, showered with sexual advertisements. As in *The Matrix Trilogy* anthology by Stacy Gillis in which postindustrial schemes are exposed as macho logic through "the subjugation of human being to the control of the machine master – the military leader (or factory owner)" (Cranny-Francis 2005: 104), Charles Leary's analysis of *The Matrix* via Marxist theories also casts light on the type of relationship that the Drummers and CryptNet hold with the circles of power:

The machine society gets its power (or "value", rather) from the kinetic energy produced by the human mind. In order to keep the mind at work, with the mind or body having no chance to revolt, humans spend their lives unknowingly in the virtual reality of the matrix (6). 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)

The entire focus of such films is on choice, apparently stating that the people enslaved by the Matrix have none of it. Nevertheless the rebels outside, apparently wielding freewill, have no choices other than to accomplish their role: Neo cannot choose to stay alive but only to sacrifice himself in behalf of humanity, and cannot

liberate humankind but only call on a truce with machines. Similar to this franchise, *The Diamond Age* purports to be a struggle between those with consciousness and those without, in which the bestowing of awareness on the dormant enslaved proletariat is the solution to the optimization of their performance:

Dr. X said [...] “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” (1995: 430).

With this, consciousness becomes no longer a safeguard for freedom or rebellion but another mechanism of control and subjugation, depicting CryptNet as the prototype of productivity and efficiency, although its performance, through not being subliminally mechanized as the Drummers’, lacks their fast pace and capabilities. Nevertheless, the Drummers’ awakening represents an actual and indubitable achievement of postcyberpunk, for the picture of an invulnerable patriarchal system is apposed to a potential vast cultivated proletariat (allegorized by the diverse hive-wetwares and cognitive cyberspaces) who receive uncensored information and knowledge, leaving behind its traditional stamp of unenlightened class, yet simultaneously performing the task of corporate cannon fodder.

Thus, postcyberpunk acknowledges multiple approaches to social standards, like the unsolvable conundrums of corporate capitalism and the benefits the masses obtain from patriarchal resolutions, all in a single narrative. Yet it continually deconstructs the meaning and purpose of every layer of the social stratification and shakes the significance of conventional roles to the point of debunking their appearance and intentions, leaving behind traditional Manichean depictions. Dr X Chinese, for instance, appears as a ‘benefactor’, though simultaneously as a controller of masses, a reimagined version of a Mao Zedong, who provokes a cultural revolution in China by awakening the dormant proletariat and by providing an army of orphan girls with cybernetic education, yet at the same time governs their destinies and ideologies on a large scale.

The hive minds that would eventually spawn from the massive, educated working classes is portrayed in *The Diamond Age* as the possible source of the panacea or the philosopher’s stone, two abstractions so intently sought by the alchemists. It is not accidental that Hackworth’s main task is to locate a mysterious character known as the Alchemist who will render the ultimate impulse for the final development of the Seed, the democratized source of raw material that can transform atoms into actual objects, being this a representation of such longed panacea, a tool that will dole out welfare and stability to the masses. What these characters represent, along with their cognitive and socialist networks, is the idea of the modification of a social Darwinism by modifying the inner structure of a bio-social hive mass, what Thomas Foster signals when he defines posthumanism as the need to modify human nature so as to cope with a modified environment (in Wiener’s terms); by this he claims that bio-technology and mind-technology can act as the prime sources of such evolution: “[...] 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, do tend to contest that boundary" (2005: 6).

In other words, cyberpunk's representation of cyberspace remains the oppressive field that obfuscates the users and provides illusions and chimeras, always an allegory of an implacable corporate domination, whereas postcyberpunk's hyperbolic depiction of the virtual presents two facets, one showing a ground that resembles the dystopias of cyberpunk, the other, more in accordance with our era, attempts to display both the benefits and the drawbacks of current technology, on the one hand allegorizing the excruciating, iniquitous, enslaving power of the higher spheres (e.g. by means of the Drummers' society and the Ractive network) and, on the other, a proposal for the apportioning of information, education and awareness among the masses (e.g. CrypNet, the Primer network) that will create a field for an autopoietic evolution.

4. Conclusion

Thus, finally, postcyberpunk, as a generic structure, must not only derive from cyberpunk but also include its essence in its own entrails, as a confrontation and a contestation, transforming it into a more appropriate view for the current times. Different from authors of the 1980s who had scarce means to study the influence of technology in day-to-day life, artists from the 1990s onwards had a broader scope of analysis, since technology was not only accessible to them but suffusing the globe: "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 this manner, Stephenson's depiction of the modern shapes and functions of cyberspace comprise a series of ambivalent approaches to cognitive and socialist technologies that, paradoxically, appear always within the control of ambiguous abstruse patriarchs who, on the one hand become aware of their role as large-scale social leaders, and on the other promote the hyperconsciousness of the complex mind of hive wetwares as the basis of self-controlled social evolution. Yet, it might not be the role of a single cyberpunkish cyberspace to be the center of such a socio-cybernetic search, but of sundry networks that observe their own intricate laws and which, in the long run, will construct a gargantuan mesh that encompasses the contributions of the other fields, thus building a complex meta-network based on cognition and an unaware clockwork of automat entities who become suffused by either conscious or unconscious cognitive processes.

Works Cited

- Bakhtin, Mikhail M. 1993 (1941): *Rabelais and his World*. Trans. Hélène Iswolsky. Bloomington: Indiana UP.
- Cavallaro, Dani 2000: *Cyberpunk and Cyberculture*. London and New Brunswick: The Athlone P.
- Clark, Andy 1998: *Being There: Putting Brain, Body and World Together Again*. London: MIT P.

- Cranny-Francis, Anne 2005: 'Moving *the Matrix*: Kinesic Excess and Post-industrial Being'. Stacy Gillis, ed. *The Matrix Trilogy: Cyberpunk Reloaded*. London: Wallflowers P. 101-13.
- Doane, Mary Anne 1990: 'Technophilia: Technology, Representation and the Feminine'. Mary Jacobus, Evelyn Fox Keller and Sally Shuttleworth, eds. *Body/Politics: Women and the Discourses of Science*. New York and London: Routledge. 23-32.
- Foster, Thomas 2005: *The Souls of Cyberfolk: Posthumanism as Vernacular Theory*. U of Minnesota P.
- Freud, Sigmund 1949: *New Introductory Lectures on Psychoanalysis*. Trans. W.J.H. Sprott. London: Hogarth P.
- Gibson, William 1995 (1984): *Neuromancer*. London: Harper Collins.
- Heuser, Sabine 2003: *Virtual Geographies: Cyberpunk at the Intersection of the Postmodern and Science Fiction*. Amsterdam and New York: Rodopi.
- Johnston, John 2001: 'Distributed Information: Complexity Theory in the Novels of Neal Stephenson and Linda Nagata'. *Science Fiction Studies* 84.28: 223-45.
- Kelly, James Patrick and John Kessel 2007: *Rewired: The Post-Cyberpunk Anthology*. San Francisco: Tachyon Publications.
- Leary, Charles 2004: *What is the Matrix? Cinema, Totality and Topophilia*. <<http://www.sensesofcinema.com/contents/04/32/matrix.html>> (Accessed 28 November, 2008)
- McCarron, Kevin 1995: 'Corpses, Animals, Machines and Mannequins: The Body and Cyberpunk'. Mike Featherstone and Roger Burrows, eds. *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*. London, Thousand Oaks and New Delhi: Sage Publications. 261-74.
- Person, Lawrence 1998: 'Notes Toward a Postcyberpunk Manifesto'. *Slashdot* <www slashdot.org/features/> (Accessed 12 October, 2006). First published in *Nova Express* 16.
- Plant, Sadie 1995: 'The Future Looms: Weaving Women and Cybernetics'. Mike Featherstone and Roger Burrows, eds. *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*. London, Thousand Oaks and New Delhi: Sage Publications. 45-64.
- 'Postcyberpunk' 2007: *Indopedia* <<http://indopedia.org/Postcyberpunk.html>> (Accessed 12 November, 2007).
- Stephenson, Neal 1995: *The Diamond Age or A Young Lady's Illustrated Primer*. New York: Bantam Books.
- Tomas, David 1995: 'Old Rituals for New Space'. Michael L. Benedikt, ed. *Cyberspace: First Steps*. London: MIT P. 31-47.
- Vint, Sherryl 2007: *Bodies of Tomorrow: Technology, Subjectivity and Science Fiction*. U of Toronto P.
- Wachowski, Andy and Larry Wachowski 2003: *The Matrix Revolutions*. Warner Brothers.

Received 11 May 2009

Revised version accepted 21 November 2009

Rafael Miranda Huereca graduated in Latin-American Literature at the UAEM [Universidad Autónoma del Estado de México] and in Music Composition at the Conservatory of the State of Mexico. He also gained an MA in Music Composition and Electronic Music at the Rotterdams Conservatorium, Holland and is a PhD. candidate at the Universidad Autónoma de Barcelona within the English Philology Department. He taught for five years at the UAEM and has lectured on microtonalism and music composition in diverse universities in Mexico, Holland and Spain. His current interests centre on multimedia projects, including video, electronic music and performance arts.

Address: Universidad Autónoma de Barcelona, Departamento de Filología Inglesa y de Germanística, Edificio B Campus UAB 08193, Bellaterra (Cerdanyola del Vallés), Despatx: B11/118. Tel.: 93 581 2330. Fax: 93 581 2001