

Chapter 1

On Information Culture

No. 6: "Where am I?"

No. 2: "In the Village."

No. 6: "What do you want?"

No. 2: "Information." *Shot of No. 6 walking across the main lawn of the Village.*

No. 6: "Whose side are you on?"

No. 2: "That would be telling. We want information. Information. Information..." *Reverb-effect on the word "information". Shot of No. 6 running across the sandy beach, attempting to escape.*

– Patrick McGooohan, The Prisoner (1967)

At the height of the Wall Street Bubble of the late 1990s, one couldn't walk down the street without tripping over an ode to the wondrous, weightless, and bodiless information economy. Information, according to its pundits, was everywhere and yet nowhere. It was the acme of abstraction, and yet the grimmest of realities. It was as simple as an LCD interface, and yet as complex as nanoscience. In the wilder versions of the tale, information was the utopian bridge between a natural history reduced to DNA, and a social history reduced to ROE (return-on-equity). After Francis Fukayama's much-advertised End of History, there wasn't much to do but reap capital gains.

Eventually the bubble collapsed, taking several trillion dollars of theoretical wealth with it. The pundits' mistake was as old as commodity fetishism itself. They assumed that information was merely a commodity, which could be readily converted into capital. Yet even the simplest information commodity is enmeshed in dizzyingly complex networks of social relations. Some of these relations are indeed capitalist, but others are virulently antagonistic to the marketplace. McGooohan's video masterpiece quoted above, for example, transforms the Cold War secret agent into the counter-cultural information guerilla, by citing one of the key tropes of the 1960s consumer culture, the beach movie.

This complexity presents cultural critics of the information culture with a number of thorny conundrums. To begin with, there is the basic problem of periodizing a cultural field which seems to reinvent itself every few years. The sheer productivity of the field puts a premium on search techniques capable of sorting through vast stockpiles of outmoded forms, as well as metrics capable of triangulating between wildly different genres, media and cultural constellations. The parallels to the plight of ordinary consumers, forever paddling around a Sargasso Sea of cheap electronic goods, incompatible software and frustratingly opaque operating codes, are more than merely metaphorical.

One of the most salient features of the information culture is its capacity to shuttle between specific information commodities on the one hand, and the general matrix of the consumer culture on the other. The wiring of the planet has meant that the most advanced information commodities – everything from Gameboys and cellphones to DVDs – circulate throughout the most remote rural communities of the global periphery. At the same time, those same networks mean that unprecedented numbers of people, goods and narratives can travel in the opposite direction, moving from the periphery to the metropolises. This planetary process of cultural exchange is, however, as fraught with social inequality, political injustice and economic exploitation as its national and international predecessors, and we will pay close attention to the

ways in which the information culture is a reflection and meditation upon the theme of social justice.

Nor is the wiring of the planet a license to argue that information is in the process of replacing aesthetics altogether. Affinity is not identity. The greatest works of the information culture are no more reducible to their coding than a great work of literature is to its grammar, or a musical work to its orchestration. What is true for the individual work is even more true for an entire cultural field. The arrival of the videogame culture no more signifies the end of cinema, for example, than the emergence of cinema meant the death of photography. Just as musicians transformed the whines, beeps and chimes of consumer electronics into the soaring beats of hip hop, and the commercial blare of the TV into the boundless vistas of video culture, so too have the service-workers of the information culture developed equally ingenious techniques of resistance, reappropriation and recuperation, ranging from open source software to the 3D videogame.¹

In order to understand these techniques, we will have recourse to a thinker not usually associated with the Information Age, namely the celebrated Frankfurt School philosopher Theodor Adorno. What Adorno gives us is a theory of the global marketplace (or what Adorno calls the total system) adequate to the internal complexity of the information culture. This total system is not, it should be noted, a variant of the Weberian iron cage or its reactionary Cold War analogue, the totalitarian state. Rather, it is the terminological short-hand for the world-market of multinational capitalism, a system in which every particular commodity, subject, and social relation is in constant motion, while the sum total of this activity is the most inflexible rigidity, a.k.a. the compulsory subordination of human needs to market forces.² Adorno's key insight is that theory, the indispensable metric of the totality, must move at the electronic speed of the global, if it wishes to do justice to the local.

If this mysterious prescription seems to come straight out of the pharmacy of Morpheus, the rebel captain in the Wachowski brothers' science fiction classic, *The Matrix* (1999), this merely underlines the degree to which the information culture is attuned to the deepest economic contradictions and political anxieties of the total system. What needs to be explained, indeed, is not so much the ways in which the greatest works of the information culture might be complicit with the logic of the marketplace, but rather the astounding ferocity, depth and scope of their *resistance* to that logic. Far from needing to be reconverted or persuaded to join the side of the global Resistance to capital, they *are* this Resistance, right down to their smallest subroutine. As the purest products of the system, they are also the most fearsome antagonists of that system, due to their capacity to run just a fraction of a clock-cycle faster than the logics running all around them.

One of the key resources at our disposal is Adorno's 1966 masterpiece, *Negative Dialectics*. Long consigned to relative obscurity due in part to a substandard English translation, and in part to the genuine difficulty of Adorno's unique and richly dialectical style, this text will furnish us with the basic toolkit of concepts, instruments and heuristics we need to hack into the most heavily secured databanks of the total system.³

One of the first of these heuristics is located at the very beginning of *Negative Dialectics*, where Adorno highlights the contradiction between the spirit of the system and the systemic spirit. In like manner, we will argue that any critique of information culture worth its salt must carefully distinguish between the systemic spirit of information capitalism, a.k.a. neoliberalism, and the informatic spirit per se – a spirit which neoliberalism constantly seeks to economically expropriate, ideologically exorcise or symbolically annul.⁴ Circumventing such recontainment

strategies requires more, however, than simply denouncing neoliberalism for what it truly is, namely a predatory ideology designed to justify the enrichment of a tiny rentier elite at the expense of virtually everyone (and everything) else on the planet. Nor is it enough to poke holes in neoliberal's ideal scenario of perfectly transparent markets, costless information transfers, and identical market actors, by showing how even the most transparent market is subject to irrational bubbles and panics, incorrect information, and imperfect competition. Rather, the critique must engage neoliberalism at the point of its greatest strength, namely its claim to embody the logic of the total system. Neoliberalism's global concept of itself must itself be globalized, its financial mediations financialized, and its informatic forms informatized, by setting all of these things in motion towards what they exclude, censor, or simply do not want to talk about.

What neoliberalism glosses over is the catastrophic violence of the world-market, which has inflicted a thirty-year Depression on sixty percent of the planet via privatization, deregulation, and IMF structural adjustment regimes. Neoliberalism has also fueled hugely destructive financial manias, which enriched the few while driving entire national economies (Thailand, South Korea, Malaysia and Indonesia in 1997, Russia in 1998, Turkey in 2001, Argentina in 2002) into bankruptcy overnight.⁵ Where neoliberalism seeks to hide the criminal impoverishment of the global workforce by means of phantasms of bodiless global speculations, the informatic spirit tracks these speculative energies back to their starting-point in realm of the corporeal.

This spirit is not really an objective space or organized subjectivity within the total system, so much as the collective force-field generated by the innumerable resistances to the global factory. It is a spectral, multinational collectivity, shimmering like the vast neon datascape of one of William Gibson's AIs. Yet to paraphrase Heiner Müller, this specter comes not from the past, but from the future. It is a digital construct which can materialize at any time and anywhere in the total system, take forms ranging from the seismic mobilizations of the global justice movement, all the way to the burgeoning infrastructures of the European Union (the world's first, but hardly last, multinational superstate).

To track that construct, we will examine three bodies of work, each located at a key juncture of the information culture. William S. Burroughs' early 1960s Nova science fiction trilogy (*The Soft Machine* in 1960, *The Ticket That Exploded* in 1962, and *Nova Express* in 1964) declares the initial autonomy of the information culture from the Cold War military-industrial complex which spawned it. William Gibson's *Neuromancer* (1984) is the breakthrough text which almost single-handedly coined the aesthetics of cyberspace. Last but not least, a remarkable cluster of 3D videogames revolutionized the Web culture at the turn of the 21st century: Valve's *Half Life* (1998); Neil Manke's *Quake 2* and *Half Life* mods (1998-2001); Croteam's *Serious Sam* (2001); and Remedy's *Max Payne* (2001).

Though Burroughs and Gibson have both begun to receive significant critical attention, particularly in the fields of science fiction and media studies, the 3D videogame is very much uncharted terrain for cultural theorists (though not for the general public: the videogame market raked in an estimated \$35 billion in 2003, while total videogame sales in the US exceeded cinema receipts).⁶ What marks these particular works as the first genuine classics of the 3D videogame culture is their ability to transform a remarkable array of neo-national, international and mass mediatic materials into a genuinely multinational art-form. *Half Life*, for example, leverages key elements of Cold War science fiction, the 1970s horror film, and the early 1990s PC shooter genre into the breakthrough 3D videogame of the 1990s. *Serious Sam* reconfigures Croatia's traumatic birth amidst the Balkans wars and the economic onslaught of Eurocapitalism

into a guerilla resistance movement against neoliberalism. Somewhat further afield, Manke's work and Remedy's *Max Payne* inaugurate what might be termed multinational horror fiction and the global adventure thriller respectively (something which, as we shall see in Chapter 5, has everything to do with Manke's location in northwestern Canada, and Remedy's base in Helsinki, Finland).

In retrospect, the 3D videogame is the paradigmatic confirmation of Fredric Jameson's theory of postmodernism as the cultural logic of multinational capitalism.⁷ Carrying Jameson's prodigious analysis one step further, we will argue that where the great works of the modernist era sought to repel the onslaught of the culture-industry, by carving out semi-autonomous spaces in the midst of an oceanic flood of kitsch churned out by the unholy trinity of Hollywood, Tin Pan Alley, and Madison Avenue (e.g. Schoenberg's twelve-tone technique, Coltrane's jazz atonality vis-à-vis commercial music; Orson Welles vis-à-vis the newsreel, or Klee and Kandinsky vis-à-vis commercial photography), the greatest works of the information culture turn the global scale and scope of the consumer culture against itself. They do this simply by being more totalizing, plebian, and downright *global* than the self-appointed agents of globalization themselves. In what has to be one of the most stunning role reversals in the history of aesthetics, it is the mainstream consumer culture which increasingly attempts to restrain, combat or otherwise recontain the logic of the information culture, rather than the other way around!

This role reversal has its precise equivalent in the ideological field, namely neoliberalism's deep-seated antagonism vis-à-vis the information commodity. Here, too, an irresistible dialectic is at work, such that the greater the density of the exchange-net, the greater the relative autonomy of any given object in that net vis-à-vis all other objects, and consequently the less binding the claim of any given social relation on that object. Ideology outsources itself into the totality, as it were, in a well-nigh Hegelian fury of disappearance. Put more concretely, the complex web of user interfaces, informatic codes and mediatic symbols by which subjects navigate the consumer culture do not simply access or refer to the ideology of globalization: rather, the consumer culture *is* globalization, pure and simple.

This signifies neither the end of the historical process nor the end of ideology per se, but their unexpected and deeply dialectical intensification. The same global machinery which dampens, displaces or recontains each local contradiction of the totality, also and invariably transmits every single one of those contradictions throughout the length and breadth of the total system. To use Hegelian language, what vanishes in the particular resurfaces in the generality, else the system would not cohere as a system. To paraphrase Adorno, the more the total system abolishes the category of ideology, the more the totality becomes completely ideological; or put in the terms of the global justice movement, the globalization of capital generates the globalization of the resistance struggles against capital.

What all of this boils down to is that, paradoxical as it sounds, neoliberalism is *for* globalization as an abstract ideal, but *against* globalization as a concrete reality. This is nowhere more obvious than in the central aesthetic ideology of Wall Street neoliberalism, namely the trope of weightlessness celebrated by partisans of the New Economy, ranging from US Federal Reserve chief Alan Greenspan to the mundane hirelings of the management industry, which privileged stock options over dividends, speculative punts over physical investment, intangible brand names over plant and equipment, and the nonsensical business plans of dotcom hucksters over unimportant details such as actual profits or even revenues. On the other hand, the kernel of truth in the concept of weightlessness was the non-identity of the Wall Street Bubble with the multinational productive forces, or put more bluntly still, the yawning rift between the juridical

and financial superstructures of a senescent US Empire, and the gargantuan industrial-financial networks of the EU and East Asia.

This rift is nowhere more obvious than the keitai (Japanese for “cellphone”) culture, which transformed an obscure text messaging system into DoCoMo’s renowned i-mode service. Launched in 1999, i-mode has already driven a veritable social revolution in Japan and the core economies of the EU, by transforming the wireless phone into cheap, portable information devices permanently hooked up to the Web, delivering the free-floating world of flexible networks of information and instantaneous communication which the standalone PC promised, but could never quite deliver. I-mode is also a textbook example of how multinational capitalism inexorably creates its own antithesis, namely the plebian public space of the electronic commons.

One of the little-known secrets behind the success of i-mode is a deeply egalitarian ethos of cooperation between service providers, large-scale manufacturers, and small and medium-size online providers, in the context of a carefully-tended ecology of Web services – a virtual blueprint, in short, for the information socialisms of the future. The result has not been rapacious monopolies and economic disaster, but the most successful Web business model ever invented. Frank Rose provides this interesting comment in an issue of *Wired*:

DoCoMo does not itself supply any of the services available on i-mode. But it’s not a dumb pipe, because in addition to the technological infrastructure, it provides the billing system that enables its partners to make money, and the marketing to sell the service to customers. The lesson of i-mode is that rather than try to morph into media companies, wireless carriers should focus on how to be a better pipe.⁸

What made this productive division of labor possible in the first place, of course, was East Asia’s system of keiretsu capitalism – decentralized networks of producers, suppliers and contractors, often organized around a bank or trading house or a single large firm, which collectively own each other’s stock (institutional shareholders are the norm in the financial markets of East Asia and the EU). It should be noted that the keiretsu are not monopolies in the sense of the 19th century trusts. No single group of owners or board runs the Mitsubishi keiretsu, for example. Rather, they are sophisticated and nimble corporate networks, capable of responding to the smallest market shifts at lightning speed, while drawing on the financial muscle of the entire group during times of crisis and restructuring.

No comparable networks exist in the US, for the simple reason that wealth in the US economy is concentrated to an extraordinary degree in the hands of individual shareholders, rather than corporations and institutions. Put bluntly, where East Asia has keiretsu ownership structures, and where the EU has powerful bank-industry alliances and welfare states, the US has Wall Street rentiers. Doug Henwood’s excellent *Wall Street*, relying on survey data from the Federal Reserve, provides us with this invaluable snapshot of what those rentiers own:

Ownership of the most valuable financial assets – real claims, like stocks and bonds – is densely packed in the upper crust. In 1992, the richest 1% of households – about 2 million adults – owned 39% of the stock owned by individuals, and 42% of the bonds (Kennickell, McManus, and Woodburn 1996); the top 10% own well over 80% of both. Since households own about half of all corporate stock, that posh 1% owns a quarter of the productive capital and future profits of corporate America; the top 10%, nearly half. These stockholders are overwhelmingly white; fewer than 6% of black and Hispanic households owned any stock in 1991 (US Bureau of the Census 1995, p. 513).

Those numbers are based on sorting households by their net worth; if you sort households by their

stock ownership, the concentration is even more intense. In 1992, the top 0.5% of stockowners held 58.6% of all publicly traded stock; the next 0.5%, 11.7%; the next 4%, 24.2%; add those together and you discover that *the top 5% owns 94.5% of all stock held by individuals* [italics in original] (Poterba and Samwick 1995).⁹

Put another way, whereas the EU and East Asia operate on the basis of long-term partnerships between labor unions, welfare or corporatist-minded states, and dense networks of small and medium-size businesses, the US economy is dominated by a tiny moneyed elite with both the means and the motive to maximize their own narrow self-interest at the expense of everyone else.

These bedrock economic structures of the global economy have three significant consequences for the information culture. First, mainstream informatic works from the EU and East Asia tend to be strongly linked to decentralized networks of production, precisely where comparable Northamerican works are heavily inflected by rentier consumerisms of various kinds. The best-selling videogames of Japan during the late 1990s, for example, were robot-based, adventure or action games, narratives predicated on the stylized demolition and reconstruction of bodies of all kinds. By contrast, the best-selling US videogames during the same time period were managerial simulations or sports games.

Second, informatic works of the highest quality have the uncanny ability to transform such global contradictions into their privileged narrative content. Burroughs' Nova trilogy depicts the global rebellion against a hegemonic Cold War consumerism, while William Gibson's work depicts the seismic clash of rival multinationalisms which have transcended the framework of the Cold War.

Third, the sheer complexity of the information culture has driven the plebianization of cultural theory throughout the service economy, everywhere from graduate programs to management seminars, consultancies to business strategy sessions, and marketing and media campaigns to financial analyst reports. It's important to stress that this service economy is by no means a North American monopoly: since the mid-1990s, giant firms such as Nintendo and Sony, as well as specialized cultural studios such as Gainax and Ghibli, have become world-class cultural producers and service providers, while the success of EU firms such as Nokia, SAP and Bertelsmann speaks for itself.

All three factors come into play in that quintessential product of the 1990s information culture, the 3D videogame. The exponential growth of online mappers, modelers and player-clans, each specializing in a particular aspect of 3D game design, testing and construction (maps, player models, team logos and icons, sound-effects, etc.), has created a remarkable variety of online communities, which cross all manner of traditional national, cultural and political boundaries. Gaming websites overflow with useful information about cutting-edge hardware, gaming strategies, custom modifications and open source software, ranging from bug fixes of game code to astonishingly creative advances on the original game. Gamers are also among the most rigorously critical consumers around, automatically distrustful of received wisdom or corporate agendas, and ready and willing to render the most merciless judgments on games which fail to measure up to the standards of the field. In short, gaming is creating one of the first authentic public spaces of the Information Age, a kind of electronic commons combining many of the best features of the community clubhouse, the library, the university department and the amateur sports league.

Though the full story of the development of this commons is far too complex to be told

here, it's worth noting that, due to technological limitations, the earliest multiplayer computer games were entirely text-based affairs, e.g. the multi-user dungeon (MUD). As Janet Murray's *Hamlet on the Holodeck* observed, dungeons were essentially glorified chat-rooms where characters interacted via written texts and typographical qualifiers. By the early 1990s, dungeons had developed into complex mini-environments wherein players could travel, compete, chat, fight, cooperate, accumulate and exchange items, and even earn (symbolic) money. Surprising as it may sound, the innovation which transformed the text-based MUD into a true global art-form was not the progress of graphical interfaces per se, but an unrelated application of game-play. This was the rise of the death-match, or competitive multiplayer gaming.

The death-match is simply an online competition between competing teams or individual players, played on a particular map and on a particular server. What made death-matching so wildly popular was the clever invention of automatic respawns, which means that players wiped out by the opposing team are automatically reincarnated, none the worse for wear, in the midst of the action. Various objects and equipment are also respawned every so often, ensuring that no team or individual can afford to sit on their lead. Simplified interfaces replaced the cumbersome verbal cues and linguistic skills of the MUD with a multinational set of scripting and mapping tools, capable of generating a limitless set of player-characters, models and environments. The result is a wild and woolly, totally unpredictable, and extraordinarily intense game-play experience, the online equivalent of the sports scrimmage.

The reptilian metaphor of "spawning" is not an accident, but is derived from one the bedrock tropes of the information culture, namely Godzilla, the classic icon of the unforeseen consequences of Cold War technology. Toho's stylized monster was both the neo-national exorcism of the horrors of Hiroshima and Nagasaki, as well as the landmark symbol of multinational capitalism in East Asia, its signature profile silhouetted against the Tokyo skyline like the uncanny premonition of the vast office towers of the postwar boom it indeed was. It's significant that the closest equivalent of the Godzilla narrative in the Hong Kong film culture, namely Bruce Lee's 1973 blockbuster *Enter the Dragon*, draws upon a progressive micropolitics (Bruce Lee's emergence as the breakthrough Asian-American superstar, or what amounts to the video categories of the martial arts videogame) as opposed to a thermonuclear natural history (Godzilla as a fable of the emergence of the Pacific Rim economy).

The great achievement of Gibson's *Neuromancer*, on the other hand, was to synthesize both antipodes – micropolitical social history and Cold War natural history – into something new. This is not the informatic matrix per se, but the informatic body capable of navigating through that matrix, and thereby setting micropolitics in motion towards geopolitics. What Gibson's text somehow intuited, decades ahead of the achieved fact, was that the neo-national mobilizations of the 1970s, the multicultural and environmental struggles of the 1980s, and the global justice mobilizations of the late 1990s are inseparable from the decline of the Cold War power-blocs and the rise of multinational economic, cultural and political formations. Post-1968 micropolitics, in short, was always the antipode of a multinational geopolitics.

What made this micropolitics intolerable to Wall Street neoliberalism was not merely the former's rhetorical insistence that the personal was the political, but the curious fact that neoliberalism's hegemony rested largely on personal, rather than geopolitical, grounds. To understand why this is so, it's worth stepping back for a moment and reexamining the central geopolitical reality of the late 20th century, namely the decline of the US Empire and the corresponding rise of East Asia and the European Union as economic, cultural and henceforth geopolitical competitors. At its zenith in the 1960s, the US was the biggest, richest, most

advanced economy on the planet, with a per capita GDP roughly double that of Western Europe and four times that of Japan; it was also the world's largest creditor nation, and the US dollar was the world reserve currency.

Two long-term transformations changed all this. First, Western Europe and East Asia began to catch up with the US; and second, the US entered a period of profound structural decline. The first part of the story can be summarized fairly quickly: thanks to canny industrial policies, far-sighted state intervention and egalitarian income structures, Japan and Europe caught up with most indexes of US per capita living standards in the late 1980s, and diversified from medium-technology and basic manufacturing industries into high-end telecom, computer and media industries in the 1990s. The second part of the story is more complicated, but boils down to the toxic long-term effects of Wall Street's rule over the US economy.

The great paradox of Wall Street neoliberalism – and one of the reasons that the information culture resists the latter as ferociously as it does – was that the stronger its stranglehold over the US economy became, the more the toxic side-effects of its rule weakened the geopolitical position of US capitalism.¹⁰ Neoliberalism's typical response to this dilemma was the symbolic effacement of US decline, via compensatory fantasies of borderless, impalpable and ultimately unreal financial speculations – magical financializations, designed to paper over the quite real financial takeover of the US economy by Eurocapital and Asiacapital. Neoliberalism thus projected a universe of investments devoid of subjective agency – financial flows without bodies – precisely where the Bubble-consumerisms of the late 1990s posited subjective agents devoid of objective context – financial bodies without their corresponding flows.

Arguably, whereas the outer limit of such bodiless flows was the transcendental perspective or Gods'-eye view of the central bankers who, as Bourdieu pointed out in a splendid passage in *Acts of Resistance*, are very much the ecclesiastical authorities of neoliberalism,¹¹ then the limit-point of bodies without flows was the speculative instrument itself: the fetishization of the specific stock certificate, initial public offering, bond document and so forth.

The irresistible conclusion is that neoliberalism, for all its global pretensions, is shockingly provincial; its claim to universality is nothing but the crassest self-interest; its concept of justice is the rankest expropriation; and its claim to incarnate economic rationality is the acme of irrationality. Just as the 19th century liberalisms harped on the virtues of fiscal prudence and Victorian mores, while indulging in the most debauched railroad speculations and bloodthirsty colonial predations, so too did their late 20th century successors prate about budgetary orthodoxy and financial transparency, while spawning lunatic financial bubbles and immiserating the bulk of the planetary population via IMF austerity regimes.

That said, it is precisely the fact that neoliberalism is so palpably untrue which makes it such an indispensable index of the information culture – or put somewhat differently, it is the fact that it is so utterly *fictional* which makes it an invaluable index of the reality of multinational capitalism. (Arguably, the Victorian liberalisms did similar yeoman service for Karl Marx, by highlighting the gap between the shining ideals of free trade and the heroic entrepreneur, and the ghastly realities of global unequal exchange and British colonialism). Neoliberalism is never more false than where it is most true, and never more true than where it is most false.

We have already mentioned three areas where the information culture is structurally antagonistic to neoliberalism, namely the realms of micropolitics, multinational aesthetics, and cultural theory. There is, however, one additional zone which needs to be mentioned here, and that is the realm of informatic politics. The stakes of this latter are far greater than the simple

demand for global access to the corporate databanks, or even the defense of the electronic commons, that loose community of public institutions, universities, and open source programmers, whose very existence disproves the neoliberal claim that market forces drive innovation and technological progress. Rather, to the extent the information culture is able to tap into the well-springs of the collective resistance to neoliberalism and to articulate alternatives to the status quo, no matter how shadowy or indistinct, then it is also the place where the nascent information proletariat *dreams*. Where the Nintendo kids dreamed of East Asian socialism, the children of the Euro dream of keitai communism.

Articulating these alternatives is not the same thing as painting utopias. No informatic utopia could do justice to the unimaginable potential slumbering in the over 6 billion human beings on this planet; conversely, no dystopia could ever truly take the measure of the appalling violence inflicted on those human beings by the total system, both in terms of unequal exchange and expropriation as well as in terms of the symbolic and cultural violence of the totality. The key contribution of the information culture, on the other hand, is its incomparable capacity to map out the total system, to bridge the yawning abyss between the representation of the reality and the reality of what is unrepresentable, and thereby open the door to Adorno's labor of the negative, Jameson's cognitive mapping, and Bourdieu's reflexive analysis, a.k.a. the critical negation of the total system.

What all of these critics would share is the insistence on the essential *plebianism* of this negation, which is by no means the exclusive preserve of highly-paid academic professionals, media superstars or programmers. Consider, for example, the subversive implications of a 1998 UN report entitled *Knowledge Societies*, which issues this blunt corrective on premature utopias of the wired world:

<u>Region</u>	<u>Illiteracy Rate</u>
Maghreb	45.5%
Other North Africa	49.2%
Sub-Saharan Africa	45.3%
West Asia	26.6%
Caribbean	20.9%
China	18.9%
Latin America	13.3%
Eastern Europe	5.8%
Central Asia	2.5%

...However, it seems likely that the vast majority of the illiterate population will be excluded from the emerging knowledge societies. This population amounts to at least 1.35 billion people or over 30 percent of the world's [adult] population. For every illiterate male there are almost two illiterate females and the ratio of female to male illiteracy is relatively constant across different cultures. If literacy is a fundamental condition for the growth of knowledge societies, it appears that many of the world's people will not have the most basic skills for participating in it, and women will be more disadvantaged than men from the outset.¹²

The so-called global digital divide is not merely a function of differing rates of development or access to technology per se, but is inextricably intertwined with the systematic destruction of the communal infrastructures of literacy, health care and education by IMF austerity packages and neoliberal restructuring. It is no accident the regions of the world-system most in thrall to

neoliberal orthodoxy, namely the Maghreb region, Latin America, the Caribbean, West Asia, and sub-Saharan Africa, show far worse results than Central Asia, Eastern Europe and China, regions with powerful traditions of non-market mobilization and state-sponsored development. If one assumes that basic literacy and education are human rights and not the privilege of monied elites, then neoliberalism may well be the most atrocious human rights abuser of them all.

Conversely, the resistance to neoliberalism has a directly pedagogic arm, in the sense that the struggle for informatic democracy – new forms of informatic literacy, new types of global solidarity between the informatic workers of the planet, and the emergence of information socialisms whose scale, scope and emancipatory potential we are just beginning to be able to imagine – is inseparable from the struggles for economic and cultural democracy. Douglas Kellner has the best single summary of the radical potential of this pedagogy:

Computer-information literacy involves learning where information is found, how to access it, and how to organize, interpret, and evaluate the information that one seeks. Computer and information literacies also involve learning how to read hypertexts, traverse the ever-changing fields of cyberculture, and to participate in a digital and interactive multimedia culture that encompasses work, education, politics, culture and everyday life... Genuine computer literacy involves not just technical knowledge and skills, but refined reading, writing, research, and communicating ability. It involves heightened capacities for critically accessing, analyzing, interpreting, processing, and storing both print-based and multimedia material. In a new information/entertainment society, immersed in transformative multimedia technology, knowledge and information come not merely in the form of print and words, but through images, sounds, and multimedia material as well.¹³

In other words, the ability to effectively use information to analyze still other forms of information – the ability, in short, to *learn* – is more than just the capacity to assimilate sign-systems or forms. Ultimately, it is the ability to grasp the historical process itself, and change that history for the better. As we shall see, the greatest works of the information culture provide us with the tools to do just that, by opening the intergalactic stargate to the geopolitical.

Endnotes

1. “Open source” means the source code for a program is made available via downloads to the public at large (either for free, or at a nominal charge). The only catch is, the end-user is not allowed to turn around and sell the original downloaded code as their own creation, but is allowed to alter the code and then redistribute it for non-commercial purposes, i.e. for free or at a nominal charge. Such software is referred to as “copyleft”, in contrast to the traditional notion of the copyright. The basic idea is to create a public library of tools and programs independent of the control of any given corporation or government agency, programs which are available to any interested citizen, something which has spurred a dramatic advance in the socialization of informatic labor. Thanks to the Internet, thousands of volunteers can collectively write, test and debug the most amazingly complicated code; the result is a quantum leap in productivity, whereby a freeware operating system such as Linux can significantly outperform Microsoft’s commercial Windows products in terms of reliability, security, cost and speed.
2. See <http://www.efn.org/~dredmond/admm.html> for the details of how the concept of the total system evolved over time, and its key position in Adorno’s vision of a negative or multinational dialectics.
3. There is a new and substantially improved translation of *Negative Dialectics* available as a free set of downloads at <http://www.efn.org/~dredmond/ndtrans.html>. It’s also worth noting that Robert Hullot-Kentor, unquestionably the best English-language translator of Adorno’s work around, is currently working on a new and definitive translation of *Negative Dialectics*, which will eventually supersede this interim version.
4. “Critique does not simply liquidate the system. At the height of the Enlightenment, D’Alembert had reason to differentiate between esprit de système [French: spirit of the system] and esprit systématique [French: systemic spirit], and the method of the Encyclopedia took this into account. Not only the trivial motive of an attachment which instead crystallizes out in what is unattached speaks for the esprit systématique; it is not only that it satisfies the bureaucratic ambition to stuff everything into its categories. The form of the system is adequate to the world in which the content eludes the hegemony of thought; unity and unanimity are however at the same time the oblique projections of a contented, no longer antagonistic condition on the coordinates of dominating, repressive thinking. The double meaning of philosophical systematics leaves no choice but to transpose the energy of thought once unbound from the philosophical systems into the open determination of particular moments. This was not exactly foreign to Hegelian logic. The micro-analysis of the individual categories, appearing simultaneously as their objective self-reflection, was supposed to allow each and every concept to pass over into others, regardless of anything laid out from above. The totality of this movement meant the system to him. Between this concept, as the one which concludes and thereby brings to a halt, and the one of the dynamic, which creates out of the subject by pure autarkic production, which constitutes all philosophic systematics, prevails contradiction as well as affinity. Hegel could balance the tension between the static and the dynamic only by means of the construction of the principle of unity, that of the Spirit, as something at the same time existent in itself and pure becoming, under the recuperation of the Aristotelean-scholastic actus purus [Latin: pure act]. The

inadequacy of this construction – subjective production and ontology, nominalism and realism, syncopated to the Archimedean point – also hinders system-immanently the dissolution of that tension. Nevertheless such a philosophical system-concept towers over the merely scientific systematic which demands ordered and well-organized representations from thought, the consistent construction of disciplinary fields, without however strictly insisting on the inner unity of the moments, from the object's point of view. As prejudiced as this postulate is in the presupposition of the identity of everything existent with the cognizing principle, so too does that postulate, once burdened as in the manner of the idealistic speculation, legitimately recall the affinity of objects to each another, which is rendered taboo by the scientific need for order in order to yield to the surrogate of its schemata. What the objects communicate in, instead of each being the atom to which classificatory logic reduces it, is the trace of the determination of objects in themselves, which Kant denied and which Hegel wished to reestablish against Kant through the subject.” Theodor Adorno. *Negative Dialektik*. Frankfurt: Suhrkamp Verlag, 1973 (35-36). (This is my own translation).

5. Despite heavy regulations and strong state intervention in the economy, the economies of the Second and Third World grew rapidly from 1945-1975. Beginning in the late 1970s, the vast majority of the Second and Third World were subjected to punishing structural adjustment regimes, including cutbacks in domestic spending on education, training and social welfare; cuts in real wages; high real interest rates; deregulation of the financial sphere; abolition of national tariffs; and extensive subsidies for well-connected domestic elites and foreign investors. The results speak for themselves: according to World Bank statistics, annual per capita growth in consumption in low-income countries declined to a pitiful 1.4% from 1980-1998, far below the comparable figure for the high-income countries (2.2%). Excluding India and China, two countries which never followed IMF prescriptions, and consequently grew faster than average, 95 out of the remaining 107 countries listed in the World Bank report saw per capita consumption levels fall (in some cases, quite drastically) relative to those of the richest countries. *The 2000-2001 World Development Report*, World Bank (277).

6. WedBush Morgan Securities estimates global videogame sales at \$35 billion in 2003. The San Jose Mercury News reported that total sales of videogame hardware, software and peripherals in the US amounted to \$10 billion in 2003, outpacing cinema revenues (\$9.3 billion). “Video game hardware revenues down in 2003: but gaming software sales rise,” Dean Takahashi, *San Jose Mercury News*, January 21, 2004. Web: <http://www.mercurynews.com/mld/mercurynews/news/local/7763478.htm>

7. Jameson's schemata can be briefly summarized as follows: the epochs of liberal, monopoly and multinational capitalism correspond, very roughly, to the reign of the British Empire in the 19th century, the rule of the US Empire in the 20th, and the dominion of the EU and East Asia in the 21st. The culture of liberal or national capitalism (very roughly, from the 17th century to the mid-19th century) was characterized by the formation of the world-market under Iberian, Dutch and ultimately British rule, the rise of an urban industrial proletariat drawn from a dispossessed peasantry, the classic urban financial speculations and imperialisms, and the politics of nation-state formation and national identity. The central logic of monopoly capitalism was international, and its hegemon was the United States. Economically, the US Empire legislated its rule via the installation of the US dollar as world reserve currency, the Bretton Woods system of fixed

exchange rates, and US military Keynesianism; politically, as the Cold War power-blocs; and culturally, the hegemony of US consumerism (automobiles, department stores, and Hollywood). Economically, the core regions of multinational capitalism are characterized by powerful developmental and welfare states, heavily institutionalized capital markets and behemoth financial-corporate networks; culturally, by a multinational media culture; and politically, by political institutions such as the European Union.

8. Frank Rose. "Pocket Monster: How DoCoMo's wireless Internet service went from fad to phenom – and turned Japan into the first post-PC nation." *Wired*, September 2001 (135).

9. Doug Henwood. *Wall Street*. NY: Verso, 1997.

10. According to neo-conservative orthodoxy, wage cuts for workers and tax cuts for the rich were supposed to rejuvenate the US economy; instead, domestic investment plummeted, the stock market boomed, and the US began to deindustrialize. By 1982, the US became a net debtor nation for the first time since the late 19th century, and began running permanent trade and current account deficits with Japan and Europe. In a very short amount of time, the net international investment position of the US economy – the total debts the US owes other economies, minus the total debt other economies owe the US – increased from 1.4% of GDP in 1982 to 10.1% in 1990, stagnated for a few years, and then mushroomed from 12% in 1994 to an astounding 26.7% of GDP by 2001. What this means is that by 2002, the US had to import \$400 billion (about 4% of its GDP) from abroad every single year, just to keep its economy afloat; by contrast, the EU and East Asia have been and continue to be self-financing.

All these statistics are derived from the US Federal Reserve's quarterly flow-of-funds reports. Complete downloads covering the years 1954 to the present are available at <<http://www.federalreserve.gov/releases/Z1>>. The EU's net international investment position was slightly negative in March of 2002, according to the ECB's Monthly Report at <<http://www.ecb.int>>; this is because the Eurobanks park much of their surplus in Switzerland. Adding in the figures from the Swiss National Bank (<<http://www.snb.ch/e/publikationen/publi.html>>), continental Europe as a whole ran a respectable capital surplus of somewhere around 2% of GDP. The Bank of Japan's latest estimate of Japan's net international investment position is available at <<http://www.mof.go.jp/english/e1c018.htm>>. Last but not least, for an explanation of why current account deficits and net international investment positions matter, see Doug Henwood's *Wall Street*, pp. 58-61.

11. Pierre Bourdieu. *Acts of Resistance*. Trans. Richard Nice. New Press: NY, 1998 (45-51).

12. Robin Mansell and Uta Wehn, eds. *Knowledge Societies: Information Technology for Sustainable Development*. Oxford: United Nations, 1998 (35).

13. Douglas Kellner. *New Technologies/New Literacies: Reconstructing Education for the New Millennium*. Logos: Winter 2002, Number 1, Volume 1 (<http://logosonline.home.igc.org/kellner.htm>)

Chapter 2

Dawn of the Information Age

William S. Burroughs is most familiar to us today as a Beat-era outlaw turned prophet of the Information Age, a media legend celebrated by the cyberpunk authors of the 1980s and hailed by the Internet visionaries of the 1990s. Perhaps Burroughs' greatest achievement, however, was his Nova science fiction trilogy, one of the true watersheds of late 20th century aesthetics. *The Soft Machine* (1960) invented the concept of cybernetic science fiction, *The Ticket That Exploded* (1962) pushed cybernetics to its functional limit, while *Nova Express* (1964) is very much the founding text of the information culture.

Burroughs' vocation as an artist was heavily overdetermined by his identity as a gay man in a deeply homophobic society. Like French playwright Jean Genet, Burroughs' personal commitment to gay liberation would translate into an abiding sympathy with the other progressive movements of the post-1968 period. Unlike Genet, however, Burroughs was the Harvard-educated scion of an upper-crust Middle Western family, who survived on his family inheritance (the legacy of a grandfather who invented the Burroughs adding machine). As a wealthy rentier, Burroughs was the purest product of US capitalism imaginable; as an artist, he was its inveterate foe. Interviewers were constantly struck by the contrast between Burroughs' punctilious demeanor – he dressed, walked and talked like a conventional 1940s Midwestern banker – and the incandescent fury of his writing. In fact, Burroughs spent much of his life either on the run, in overseas exile, or in recovery, battling a lifelong heroin addiction.

Contrary to popular mythology, this addiction was *not* the primary source of his creative inspiration. Thanks to a fortuitous constellation of class background, personal biography, and Cold War geopolitics, Burroughs had the motivation, the opportunity and the sheer cash-flow to document the zero-hour of the information culture. Economically, the 1960s marked the zenith of the US Empire, the moment when US chemical, automotive and energy firms pioneered globalization by investing heavily in Western Europe and the Pacific Rim. Politically, the 1960s witnessed the high tide of anti-colonial uprisings and national revolutions, from Vietnam to Cuba. In a very real sense, the Nova trilogy documents the historic collision of First World consumerism and Third World revolution.

This is a point often lost on first-time readers of Burroughs, who are either appalled or enthralled by what seems to be a noisome tumult of scatology, decay and chaos. Paradoxical as it sounds, one of the most consistent features of Burroughs' work is its extraordinary formal precision and narrative subtlety. Consider this monologue by Inspector J. Lee in the opening pages of *Nova Express*, which combines the utmost complexity with startling simplicity:

Listen to my last words anywhere. Listen to my last words any world. Listen all you boards syndicates and governments of the earth. And you powers behind what filth deals consummated in what lavatory to take what is not yours. To sell the ground from unborn feet forever –

“Don't let them see us. Don't tell them what we are doing –”

Are these the words of the all-powerful boards and syndicates of the earth?

“For God's sake don't let that Coca-Cola thing out –”

“Not The Cancer Deal with The Venusians –”

“Not the Green Deal – Don't show them that –”

“Not the Orgasm Death –”

“Not the ovens –”

Listen: I call you all. Show your cards all players. Pay it all pay it all pay it all back. Play it all pay it all play it all back. For all to see. In Times Square. In Piccadilly.¹

On the level of form, the verbal repetitions between words/world, anywhere/any world, and pay/play are counterpointed by the mysterious capitalized terms, which refer to various conspiracies of the Nova Mob. In terms of content, the passage moves from acoustic to visual registers, from injunction to evidence, and from the realm of international commercial and power elites to a democratized viewing-space, where the rule of those elites can be contested. If the slightly dated references to Piccadilly and Times Square were replaced by contemporary websites and the capitalized terms by hyperlinks, it's not difficult to imagine this passage on a world-class blog, denouncing the latest global corporate scandal.

To grasp the true measure of Burroughs' contribution to the information culture, however, we need to return to the first installment of the Nova trilogy, *The Soft Machine*. What immediately distinguishes this text from the Beat culture of the late 1950s, with its existential outlaws and rebels without a cause, is its non-American location. In retrospect, the narrative limit of Burroughs' earlier work, *Naked Lunch*, was the boundary of US culture itself.² *The Soft Machine* will graft Burroughs' critique of US consumerism onto a much larger geopolitical frame.

Indeed, what most impresses contemporary readers of *The Soft Machine* is its ecological conscience – the forthright depiction of the environmental, cultural and social devastation inflicted by unchecked marketization, everywhere from the cynical economic monopolies of *Trak, Trak, Trak*³ to the fictionalized Latin America of *The Mayan Caper*.⁴ In the following passage, Burroughs transforms a routine visit to an impoverished Third World oil town or mining camp into a veritable science fiction extravaganza:

Through customs checks and control posts and over the mountains in a blue blast of safe conducts and three monkey creatures ran across the road in a warm wind – (sound of barking dogs and running water) swinging round curves over the misty void – down to end of the road towns on the edge of Yage country where shy Indian cops checked our papers – through broken stellae, pottery fragments, worked stones, condoms and shit-stained comics, slag heaps of phosphorescent metal excrement – faces eaten by the pink and purple insect disease of the New World – crab boys with human legs and genitals crawl out of clay cubicles – Terminal junkies hawk out crystal throat gristle in the cold mountain wind – Goof ball bums covered with shit sleep in rusty bathtubs – a delta of sewage to the sky under terminal stasis, speared a sick dolphin that surfaced in bubbles of coal gas – taste of metal left silver sores on our lips – only food for this village built on iron racks over an iridescent lagoon – swamp delta to the sky lit by orange gas flares...⁵

Much of the power of this passage derives from the pointed, telegraphic sentences bounded by hyphens, or what Burroughs termed his “cut-up” technique. In some cases, these were based on actual lines of newspaper and magazine texts, cut up with a scissors and rearranged in various patterns; however, Burroughs heavily edited the results to maximize their rhythmic impact. What makes this hideous landscape of trash dumps, gas flares and slag heaps so compelling, on the other hand, is the eerie transmutation of machines into quasi-living things, and living things back into machines – or what amounts to a cybernetic neocolonialism. As a rule, the cybernetic technologies of the 1960s operated on the basis of mechanical or hydraulic (as opposed to

electronic) systems of feedback and control, and many of the baroque homoerotic fantasies of *The Soft Machine* revolve around semi-automatic machines and uncannily lifelike capital goods. Mining tailings turn into glowing excrement, the mutant crab boys prostitute their semi-human bodies, while the “sick dolphin” – most likely a diesel-powered boat – reads like the hallucinogenic scansion of Marlow’s steamship in Conrad’s *Heart of Darkness*. But where Conrad denounced the horrors of Belgian colonialism from the standpoint of a compensatory British identity, Burroughs has no corresponding belief in the civilizing mission of the US Empire. What is most striking about his vision of neocolonialism is its inherent multinationalism. Witness Johnny Yen’s striptease in *Celluloid Kali*:

The lights dimmed and Johnny pranced out in goggles flickering Northern Lights wearing a jock of undifferentiated tissue that must be in constant movement to avoid crystallization. A penis rose out of the jock and dissolved in pink light back to a clitoris, balls retract into cunt with a fluid plop. Three times he did this to wild ‘Oles!’ from the audience. Drifted to the bar and ordered a heavy blue drink. D noted patches of white crystal formed along the scar lines on Johnny’s copy face. “Just like canals. Maybe I’m a Martian when the Crystals are down.”⁶

While “Johnny Yen” hints at a 1950s Japan which was still a subaltern or Second World industrial economy, the references to the crystal and Martians suggests an alien broadcasting or radio technology. By contrast, Johnny Yen’s patron, a nameless doctor, seems to be a vaguely Mephistophelean black-market organ-grafter or surgical specialist. The entire scene suggests a properly neocolonial division of labor between the local hired help and the manager of an overseas assembly factory.⁷

What marks *The Soft Machine* as the first classic of the information culture is its capacity to turn these cybernetic narratives against the framework of the Cold War media culture. One of the clearest examples of this is Burroughs’ uproarious punning of the media and military jargon of the US Empire: Inspector J. Lee is clearly an anagram for “jailee”, informant Uranium Willy is a reflexive reference to Burroughs’ own first name, while the “heavy metal boys” refer to the artificial elements produced by atomic fission (the code name of the first atomic bomb was Fat Boy). More subtly, Burroughs will begin to transform the social history of monopoly capitalism into a nightmarish natural history: Cold War client regimes turn into gangster conspiracies, IMF-World Bank technocrats into loan sharks, and multinational corporations into drug-pushers. (*The Ticket That Exploded* will refine this strategy, transforming the 1950s culture-industry into the lethal amusement parks and floating casinos of the Garden of Delights or “G.O.D.”, a kind of biologic shopping mall where hustlers peddle all manner of biochemical cons and swindles). What is missing from this catalogue of horrors is, of course, the *resistance* to all these things, that is to say, a cybernetic subject capable of navigating the marketplace of cybernetic technologies, and rebelling against the Cold War media culture on its own terrain. Burroughs’ first move here is to assemble snapshots of the Hollywood producer and the pornographic or blue movie into a kind of rough mediatic template:

The examiner floats up from the floor, swims down through heavy water from ceiling, shoots up from toilet bowl, English baths, underwater takes of genitals and pubic hairs in spermy water. The goggles lick over his body phosphorescent moths, through rectal hairs orange halos flicker around his penis. In his sleep, naked Panama nights, the camera pulsing in blue silence and ozone smells, sometimes the cubicle

open out on all sides into purple space. X-ray photos of viscera and fecal movements, his body a transparent blue fish.⁸

The narrative effect is like watching the retinal after-images of Paul Klee and 1940s film noir dissolve into the free-flowing surfaces of 1950s animation stills and the phosphorescent trails of Pollock's Abstract Expressionism, that supreme American embodiment of late visual modernism. Rather than simply playing off the painted surface against the filmic screen, Burroughs asks us to imagine the revolutionary possibilities of the three-dimensional "purple space" hinted at above, or what amounts to the radical expropriation of the entire universe of extended cultural reproduction. One of the first examples of such a guerilla raid on the hegemony of Hollywood is the dialogue between pilot K9 and Uranian Willy in the fragmentary chapter by the same name. Although Burroughs will recycle much of this material in the *Uranium Willy* chapter of *Nova Express*, one passage is worth quoting in particular :

Pilot K9 caught the syndicate killer image on a penny arcade screen and held it in his sight – Now he was behind it in it was it – The image disintegrated in photo flash of total recognition – Other image on screen – Hold in sight – Smell of burning metal in his head – "Pilot K9, you are cut off – Back – Back – Back before the whole fucking shithouse goes up – Return to base immediately – Ride music beam back to base – Stay out of that time flak – all pilots ride Pan Pipes back to base." It was impossible to estimate the damage – Board Books destroyed – Enemy personnel decimated – The message of total resistance on short wave of the world.⁹

Here some sort of WW II fighter mission, interspersed with photo stills of the gangster film, is simulcast over a pirate radio broadcast and anchored by the frenetic rhythms of a late 1950s sound-track (the Pan pipes hint at Charlie Parker's limpid thirty-second notes). This is a remarkably prescient anticipation of the very first arcade videogames, with the proviso that the "penny arcade" refers not to a landscape of electronic machinery, but to mechanical juke boxes and pinball machines.

What remains problematic about the passage is the reference to short wave radio, a niche hobby as opposed to a global broadcasting network. Similarly, K9 disintegrates the specific image of the syndicate killer, but leaves the larger battle over the image-culture unresolved. The reason is that Burroughs is still in the process of constructing a cybernetic subject capable of simultaneously accessing a given mediatic form and technological body. The single greatest expression of this subject is located near the end of *The Soft Machine*, in a terrific line where Atomic Age post-history crash-lands into Stone Age prehistory:

"Explosive Bio-Advance Men out of space to employ Electrician in gasoline crack of history... cross the wounded galaxies we intersect, poison of dead sun in your brain slowly fading – Migrants of ape in gasoline crack of history, explosive bio-advance out of space to neon..."¹⁰

The key here is the phrase "bio-advance out of space to neon", which brackets the neon-lit streets and rebuses of 1920s Surrealism and the rocket launches of the 1950s space program from the standpoint of a cybernetic biology. Put another way, the electrician sparks the "gasoline crack of history" much like a sparkplug triggering an internal combustion engine.

This particular cybernetic subject, then, is still construed in terms of hardwired electronics rather than software codes. The corollary of Burroughs' single most famous comment, namely that the word is a virus, is that the Burroughsian word is dependent on a cybernetic body or biochemical host of some sort. This is most apparent in the following fantasm of the petrochemicals industry, which not coincidentally was a pioneer in the field of cybernetic processing and controls:

It was a transitional period because of the Synthetics and everybody was raising some kinda awful life form in his bidet to fight the Sex Enemy – The results were not in all respects reasonable men, but the Synthetics were rolling off that line and we were getting some damned interesting types by golly blue heavy metal boys with near zero metabolism that shit once a century and then it's a slag heap and disposal problem in the worst form there is: sewage delta to a painted sky under orange gas flares, islands of garbage where green boy-girls tend human heads in chemical gardens, terminal cities under the metal word fallout like cold melted solder on walls and streets, sputtering cripples with phosphorescent metal stumps – So we decided the blue heavy metal boys were not in all respects a good blueprint.¹¹

Here, a series of increasingly risqué Cold War puns (“Sex Enemy”, “the metal word fallout” and “blue heavy metal boys”) converges into the triple pun on “blueprint”: at once architectural design, blue-movie text, and high-tech innovation-rent. At the same time, Johnny Yen's role is replicated by a local labor force of androgynous boy-girls, charged with operating semi-automatic processing machines (the literally and figuratively cultivated human heads).

This is an admittedly baroque gloss of the Satanic mill, reprised in terms of the overseas branch plant. What glimmers at the margins of such passages is the presence of a new kind of subjectivity, namely the highly educated, scientifically literate service-workers of consumer capitalism who are charged with designing everything from synthetic fabrics to nuclear devices. These service-workers are locked in struggle with an entity which is not identical to the US national security state, but structurally related to its mode of social organization. This entity can be nothing less than the Cold War multidivisional corporation, typified by DuPont, a firm which pioneered the use of corporate basic research, innovated synthetic fabrics such as nylon, and provided the management expertise and chemical engineering processes for the Manhattan Project. (It is no accident that DuPont was one of the earliest champions of globalization, and set up numerous overseas branch plants throughout the 1950s.)

This first, embryonic attempt to name a multinational corporation in the language of its own production-lines will be considerably expanded in the second volume of the Nova trilogy, *The Ticket That Exploded*. Though Burroughs himself was critical of the result, dismissing it as a secondary work comprised of archival material and routines excised from *The Soft Machine*, the text does represent a significant advance over its predecessor. On the level of form, the mechanical transpositions of the cut-up are infused with an updated content, or what amounts to the hot-wiring of the international sign-systems of late modernism onto the chassis of an exuberant 1950s mass-culture.

Roughly analogous strategies were pursued by the cinematic auteurs of the late 1950s, who began to incorporate multinational materials into international cinematic forms: Hitchcock's *North by Northwest* (1959), for example, careens wildly between the detective story and the action-adventure thriller, while keeping just one step ahead of its closest mass-cultural analogue, the James Bond spectacular. Similarly, the opening sequence of *The Ticket That Exploded* depicts a hectoring Hollywood director and a rabidly imperialist war movie gone haywire, who are both upstaged by the bickering between a harebrained scriptwriter and B.J., evidently some sort of

film producer. But where we might expect an earnest battlefield report or, at the very least, the iridescent image-war of Alfred Bester's *The Stars, My Destination* (1956), Burroughs launches us instead into the hallucinatory vistas of *winds of time*:

The two beings twisted free of human coordinates rectums merging in a rusty swamp smell – spurts of semen fell through the blue twilight of the room like opal chips – The air was full of flicker ghosts who move with the speed of light through orgasms of the world – tentative beings taking form for a few seconds in copulations of light... The blue metal boy naked now flooded back into his memory as the green boy-girl dropped spaceship controls in swirls of poisonous color...¹²

Cinematic time falls into video space: the green boy-girls we glimpsed earlier now begin to reappropriate the media technology of their masters. The result is like a series of recorded fairy tales, played at fast-forward speed: a meeting with the Nova Police, one of the great unheralded primers of the New Left,¹³ is followed by a garbled biological murder-mystery, an uneven pastiche of Joyce, and finally Bill&Iam's prison-break, which describes a brief and terrifying self-deprogramming and an all-out assault on the guard towers. There are also a number of entertaining intermezzos, most notably the carnivorous Happy Cloak, a clever recombination of the drug narrative with the existential textile which was borrowed from a Henry Kuttner short story;¹⁴ or, further afield, the self-demolition of a Cold War surveillance technology ("A tape recorder gasps, shits, pisses, strangles and ejaculates at his feet"),¹⁵ courtesy of the Demolition Squad charged with disposing film reels from the Garden of Delights.

Only the Joyce pastiche falls resoundingly flat, highlighting one of the little-known limitations of the cut-up. This is its tendency to short-circuit or otherwise disrupt non-mediatized narratives. This was not yet an issue for the modernist works of the 1930s, where the whole point was to reassert the primacy of a crisis-stricken national-monopoly form over whatever international content was handy (e.g. the Fascist populism of Celine's gutter-lingo and telegraphic insults, Eisenstein's Bolshevik close-ups and Stalinized panoramas, or the polyglot grammars of *Finnegan's Wake*). The global spread of Hollywood and US consumerism after WW II, however, quickly put the crisis of international form back on the front burner, driving many late modernist artists to create explicitly anti-commercial forms (Beckett's *Endgame* is the most famous of these, but one could also point to the elusive narrative multiplicity of Kurosawa's *Rashomon*).

Probably the most concise way of phrasing the problem is that *The Ticket That Exploded* is an attempt to reconcile 1960s mass-cultural forms with a vocabulary drawn from the 1950s mass-culture. Where the experiment miscarries, flashes of 1940s narrative bedrock suddenly become visible. The religious cults and street hustlers of *in a strange bed*, the Top 40 music chatter and sexist asides of *do you love me?*, and the hackneyed media collage and dial-tone manifesto of *in that game?* are hardly the most egregious offenders here. In fact, wide swathes of the last hundred pages of the novel are a sargasso sea of detritus, occasionally enlivened by passages of superb editing, but markedly inferior to the frenetic innovations of first eleven chapters.

That said, those eleven chapters do make the whole enterprise worthwhile. The *operation rewrite* and *nova police* chapters are practically miniature masterpieces in their own right, thanks to their canny fusion of the anti-colonial revolutions and the postmodern culture-worker, and the transcription of cybernetic concepts of feedback and recursion onto geopolitics. For the first time, the Nova Police are described not as a glorified UN peace-keeping force, but as a kind of

transnational guerilla movement, located halfway between the national security states and a plethora of multinational communications, scientific, educational, and media infrastructures. Burroughs' aesthetic dilemma has the most striking parallels to the central economic contradiction facing the post-colonial regimes of the post-Bandung era. The trading-rents which once accrued to colonial monopolies and landed elites could be nationalized, but not effectively deployed by nation-states practically denuded of managerial and professional talent by colonialism and expatriate flight. As Andre Gunder Frank observed, the most common result was that indigenous comprador elites simply stepped into the shoes of the former colonialists. Even in Latin America, where decolonization had taken place a century earlier, the most common result was technological and financial dependence on First World markets, ill-advised industrialization projects designed to enrich insider oligarchies rather than developing the national economy, and neocolonial debt dependency.¹⁶ Whatever the subjective or ideological aspirations of modernizing elites gathered under the banner of Kennedy's Alliance for Progress, their objective class position could not, under the circumstances, be anything other than that of raw materials rentiers.

It is precisely the contradiction between the rentier state and national-revolutionary cadres, between the pernicious Mugwumps and Hassan i Sabbah, which drives *The Ticket That Exploded* towards one of its most remarkable narrative innovations. This is the refunctioning of the trope of the Third World's alleged archaicism – its economic subalternity, vast peasant populations, and precapitalist social formations – into a trope of modernization. This has its first expression in *the black fruit*, where Lykin's space-travels and Bradly's psychedelic sojourns are serenaded by an anonymous fishboy and a well-informed tourist guide, respectively. Though these composite sketches are later inundated by a wave of hallucinogenic juxtapositions, the principle will be extended in *all members worst a century*, an adventure parody embellished by wild temporal swings between 1862 and 1962 (the peak of Victorian Britain versus the zenith of the US Empire).

In particular, the telltale mention of an expatriate Dutchman and a Malaysian guide suggests the environs of former Dutch colony Indonesia, while the accompanying narrative recounts the displacement of a feminized heterosexuality by a emancipatory homoeroticism, or what amounts to the negation of a feminized colonial identity by a remasculinized national bureaucracy (a.k.a. the defeat of the Dutch by Sukarno and the Indonesian army).¹⁷ Burroughs' text is remarkably explicit about the violence this process entails:

A young male face of dazzling beauty moved in and i was free of my body – The orchid girl floated over the pool toward me and i rushed her stuttering back sex words that tore her tentative substance like bullets – i caught a final glimpse of her agonized face eaten by caustic slime – A scream faded out in birdcalls and jungle sounds and lapping water –¹⁸

The scream countermands the visual plenitude of the boy's face, by naming the price every former colony paid in order to constitute itself as a nation-state in the first place: this is the relegation of local and regional identities, as well as competing nationalisms, to the jungle wastes. The humanization of the national is the flip side of the dehumanization of the non-national, something confirmed by the trajectory from Sukarno's emancipatory nationalism to Suharto's 1965 coup and subsequent genocide against alleged Communist subversives. It is to Burroughs' lasting credit that he neither censors nor fetishizes the ferocious violence of the peripheries, but identifies this violence in the context of the violence of the Cold War national

security states. In this, Burroughs approaches the borders of Adorno's vision of natural history in *Negative Dialectics* (1966), namely the total system's threat of total self-destruction, apparent everywhere from the ecological devastation of the planet to the Cold War arms race.

Burroughs' response to the nightmare of Cold War prehistory will be the utopia of the thermonuclear subject. The first version of this is undoubtedly Bradly's biochemical time-travel in *terminal street*, something underlined by Burroughs' self-portrait of his transmutation into a writer.¹⁹ Later versions include *combat troops in the area*, a partial rewrite of *The Soft Machine's Uranium Willy* with expository details on the malign roles of Minraud, the Crab Guards, and the Scorpion Electricals, versus the beneficent Green Troops. The ultimate grounds of the thermonuclear subject, however, will not be Cold War geopolitics per se, but the electronic space outlined by *writing machine*. This space is one of the great anticipations of cyberspace:

Great sheets of magnetized print held color and disintegrated in cold mineral silence as word dust falls from demagnetized pictures – Photomontage fragments backed with iron stuck to patterns and fell in swirls mixing with color dust to form new patterns, shimmering, falling, magnetized, demagnetized to the flicker of blue cylinders pulsing neon tubes and globes – In metal booths brain waves wrote the flickering message passed back and forth, over and through shifting grills – The magnetic pencil caught in calligraphs of Brion Gysin wrote back into the brain metal patterns of silence and space – orgone accumulators flickering blue over swimming tanks where naked youths bathed in blue – sound and image flakes falling like luminous grey snow – falling softly from demagnetized patterns into blue silence – Metal heads reversed eyes felt tingling blue spark erections – Metal orgasms flickering rainbow colors – came in wet scenic railways of dream – Electrodes from the brain wrote out boys on roller skates in a shower of ruined suburbs –²⁰

All the hegemonic features of the information culture are at work here, ranging from seamless networks of information production to recorded media environments, and from orgiastic consumerisms to a suburban roller-skating (nowadays, roller-blading) youth culture. At first glance, this First World consumerism seems to have little enough to do with a nascent Third World subject, until one considers the fact that the entire display is, quite literally, a writing machine – that is to say, an instrument of global production. In effect, the brain waves and electrodes of unseen First World subjects are writing out messages which consist of Second World bodies, with the assistance of a Third World workforce (the “metal heads” who, though reduced to factors of production by the factory-narrative in question, are nevertheless able to genuflect on Expressionistic “railways of dream”). The result is surely the one of the most mind-bending descriptions of an electronics plant in the Third World ever written. It is as if the embodied labor congealed in the cheap radios, transistors, tape players, television sets and electronic goods being produced in the Third World export-processing zones of the day were somehow able to speak, if only for a moment, in a transnational language of electronic whines and scratches, welding arcs and machine-shop stamps, all set to the propulsive rhythm of the global assembly-line.

Put another way, Burroughs' writing machine is something like a fantasmatic word-processor, one step further along the chain of electronic evolution from the electric typewriter. What is missing, to be sure, is the script or symbolic document by which these machines of textual reproduction are reproduced: mass media codes, or software. Burroughs' provisional attempts at delivering such a script – everything from citations of Gysin's calligraphy to Reich's sex therapies – are notably unconvincing, and one can argue that the original cybernetic synthesis

of *The Soft Machine* (put crudely, the brain considered as an analog telephone switchboard and the body as a petrochemical cracking-plant) begins to split apart in *The Ticket That Exploded* due to its own internal contradictions, namely the clash between increasingly autonomous surveillance and communications networks on the one hand, and disconnected mechanisms of hormonal feedback and control on the other.

This is perhaps the place to mention N. Katharine Hayles' indispensable study of the ideology of cybernetics, *How We Became Posthuman*. Hayles quotes extensively from the tape-recorder sequences of *The Ticket That Exploded*, showing that, at a certain point, the extended reproduction of information became antagonistic to the positivist-mechanical, military-cybernetic and natural-scientific bodies in which the former was housed. The result was the creation of a post-humanist or informatic discourse of the body, in place of the traditional positivistic or humanistic ones. Hayles' insight is confirmed by the flashes of a post-cybernetic subject faintly visible in *substitute flesh*, everywhere from hints of some sort of cybernetic recording and production studio ("Stroking music from hose attachments they turn virus punch cards to magnetic patterns")²¹ all the way to the biological mutation of *combat troops in the area*:

The mold of his body cracked and he stepped free – a slender green creature, his hands ended in black claws covered with fine magnetic wires that extended up the inner arm to the elbow – He was wearing a gas mask to breathe carbon dioxide of enemy planet – antennae ears tuned to all voices of the city, each voice classified on a silent switchboard – green disk eyes with pupils of a pale electric blue – body of a hard green substance like flexible jade – back brain and spine burned with blue sparks as messages crackled in and out –²²

The cybernetic organism morphs effortlessly into Donna Haraway's gender-bending cyborg, which detaches itself from the centralized grip of a broadcast station or control-program and begins its own autonomous scan of the media sphere.²³ Taken together, the global innovation-rents of the radio transceiver, a tapped or centrally-monitored telephone network, and the B-movie science fiction reference to the little green men from Mars suggest the standpoint of the skilled radio technician or electronics specialist – not quite the university hackers and programmers of the 1970s, but no longer the Pentagon's communications and electronics specialists of the early 1960s, either.

This raises interesting questions about Burroughs' relationship to mainstream science fiction. Whereas the psychedelic sequences of *The Ticket That Exploded* hearken back to the baroque horror and pulp fantasies of R.E. Howard and H. P. Lovecraft, and the media satires are not too distant from the technological parables of Heinlein and Asimov, the various media guerillas and underground resistance movements have no such obviously American referent, unless it be to the telephonic (and time-traveling) youth-culture of Lewis Padgett's *Mimsy Were the Borogoves*. Possibly Burroughs' closest analogue was the Japanese monster spectacular of the 1950's. The Godzilla narratives were not simply a catharsis of wartime destruction or a protest against the American H-bomb tests, something registered elsewhere by the Hiroshima and Nagasaki narratives, as well as the pacifism of Kon Ichikawa's *Fires on the Plain*. The real issue was the bewildering and inexplicable *prosperity* of the Korean War boom, triggered by lucrative US military contracts. The leap from the superstitious villagers of Odo Island to Godzilla's rampage through downtown Tokyo was the symbolic compensation for Japan's lightning metamorphosis from a largely agrarian and village-based society into an predominantly urban and industrial one – a transformation which took a hundred and fifty years to complete in

Britain and seventy years in America and Germany, but only a scant twenty years (1945-65) in Japan.

This is confirmed by the following passage, which evokes the sprawling complexity and spatial density of Second World export-platform cities such as Hong Kong or Tokyo:

Controllers of the Green Troops moved in now – Light-years in eyes that write character of biologic alteration – Vampires fall to dust – crumpled cloth bodies on the glass and metal streets – The Venusians are relegated to terminal sewage deltas – The Uranians back to the heavy cold mist of mineral silence – Dry heat and insect forms close round the people of Mercury – Consequences and alternatives flash on off – Accept Rewrite or return to conditions you intended to impose on this colony – No appeal from eyes that see light-years in advance – Explode substitute giving orders – Green metal antennae crackling static in the transient hotels – cutting virus troops with static noises – Galactic shock troops break through moving in fast on music poured through nerve circuits... Television mind destroyed – Love is falling from this paper punching holes in photograph...²⁴

The petrochemical bodily process is superseded by the biologic niche market, the Cold War intervention turns into a UN relief convoy, the Hollywood film is disrupted by a kind of favela theater, and the Cold War TV broadcast is jammed by roving teams of cybernetic media guerillas, whose electro-mechanical bodies are retrofitted with informatic sensors. This is closely connected with the juxtaposition of computer punch cards with grainy photographs or codices no longer bound to an immediate journalistic or photographic frame of reference: the resulting silicon cuneiform is a dead ringer for the computer program.

This moment calls to mind the science fiction of Stanislaw Lem, whose work spanned the realms of philology, philosophy and the notion of a properly informatic alien biology (i.e. species which exist solely as Boolean subunits). But where Lem grounded this contradiction in terms of Poland's struggle for self-definition vis-a-vis the USSR, Burroughs' narrative focuses on quite a different struggle: the battle between multinational programmers, service-workers and media technicians, and the multinational corporations spawned by the Pentagon contracts and consumer markets of the Cold War. The Nova Mob are not a petty criminal conspiracy or even a set of conspiracies, they are the historical culmination of all Mafias, the power-elites of a henceforth multinational capitalism:

In three-dimensional terms the board is a group representing international big money who intend to take over and monopolize space – They have their own space arrangements privately owned and consider the governmental space programs a joke – The board books are records pertaining to anyone who can be of use to their program or anyone who could endanger it...²⁵

As for what happens when the information guerillas begin to re-appropriate the coding tools of the multinationals through the very corridors and networks of electronic power, that is for Nova Express to tell.

Endnotes

1. *Nova Express*. (3-4)

2. Significantly, the most insistent refrain of *Naked Lunch* is, “Selling is more of a habit than using.” This is an aesthetic limitation which much of the Beat culture shares – the uncritical celebration of the kinetic sublime of US highways, cars and roadside encounters. William Burroughs. *Naked Lunch*. New York: Grove Press, 1959 (15, 232).

3. More is at stake here than the denunciation of those mainstays of the US Empire, namely Hollywood, Coca-cola, oil and the overseas dollar economy, sprayed over the walls of the favela like graffiti:

Bradley was reading the sign nailed to a split-bamboo tenement – The sign was printed on white paper book page size:

Cut The Sex and Dream Utility Lines//

Cut the Trak Service Lines//

The paws do no refresh//

Clom Fliday Meester Surplus Oil//

Working for the Yankee dollar?//

Trak your own utilities// *The Soft Machine* (40)

This seems reasonably Marxist-Leninist, until we are informed that Trak is not an American firm at all. Does the last sentence signify a positive nationalization or a negative internationalism? Burroughs rejects both options, asking us instead to decode a nascent politics of multinationalization:

He [the Swede] dimed the Sex and Dream Utilities of the land. And he was shipped back to Sweden in a lead cylinder to found the Trak Service and the Trak Board. Trak has come a long way from a magic lantern in the Chink laundry. The Heads were donated to the Gothenburg Museum where the comparatively innocuous emanations precipitated a mass sex orgy. Vagos Jugadores, sola esperanza del mundo, take it to Cut City. the black obsidian pyramid of Trak Home Office.

“The perfect product, gentlemen, has precise molecular affinity for its client of predilection. Someone urges the manufacture and sale of products that wear out? This is not the way of competitive elimination. Our product never leaves the customer. We sell the Servicing and all Trak products have precise need of Trak servicing... The servicing of a competitor would act like antibiotic, offering to our noble Trak-strain services inedible counterpart... This is not just another habit-forming drug this is the habit-forming drug takes over all functions form the addict including his completely unnecessary under the uh circumstances and cumbersome skeleton. Reducing him ultimately to the helpless condition of a larva. He may be said then to owe his very life such as it is to Trak servicing.”

The Trak Reservation so-called includes almost all areas in and about the United Republics of Freelandt...” *The Soft Machine* (42-43)

That is, Trak is a Swedish firm, which exploits its own country as much as the Third World. Sweden was, in terms of its industrial structure, still very much a Second World country in 1961; and where the other Second World economies merged seamlessly into the project of the post-colonial comprador bourgeoisies, so too were the overseas holdings of Swedish firms ultimately indistinguishable from the social democratic developmental state itself.

4. This is conjoined to the first explicit mention of the cut-up method: “I started my trip in the morgue with old newspapers, folding in today with yesterday and typing out composites – When you skip through a newspaper as most of us do you see a great deal more than you know – In fact you see it all on a subliminal level – Now when I fold today's paper in with yesterday's paper and arrange the pictures to form a time section montage, I am literally moving back to the time when I read yesterday's paper, this is traveling in time back to yesterday – I did this eight hours a day for three months – I went back as far as the papers went – I dug out old magazines and forgotten novels and letters – I made fold-ins and composites and I did the same with photos – The next step was carried out in a film studio...” *The Soft Machine* (81-82)

5. *The Soft Machine* (35)

6. *The Soft Machine* (69)

7. “The doctor reached out his abbreviated fibrous fingers in which surgical instruments caught neon and cut Johnny's face into fragments of light. “Jelly,” the doctor said, liquid gurgles through his hardened purple gums. His tongue was split and the two sections curled over each other as he talked: “Life jelly. It sticks and grows on you like Johnny.” Little papules of tissue were embedded in the doctor's hands. The doctor pulled a scalpel out of Johnny's ear and trimmed the papules into an ash tray where they stirred slowly exuding a green juice.” *The Soft Machine* (74)

8. Ibid. 136

9. Ibid. 152

10. *The Soft Machine* (178). It's worth noting how Burroughs refines and streamlines this passage in *Nova Express*, transforming the typographic jangling of the original into the smoothly computerized hum of the following:

“Sliding between light and shadow – Muttering in the dogs of unfamiliar score – Cross the wounded galaxies we intersect – Poison of dead sun in your brain slowly fading – Migrants of ape in gasoline crack of history – Explosive bio advance out of space to neon...” *Nova Express* (132)

11. *The Soft Machine* (157)

12. *The Ticket That Exploded* (7)

13. Witness Bill Lee's meeting with the District Supervisor later in the same chapter:

The man who used that voice had no native language. He had learned the use of an alien tool. The words floated in the air behind him as he walked.

"In this organization, Mr. Lee, we do not encourage togetherness, esprit de corps. We do not give our agents the impression of belonging. As you know most existing organizations stress such primitive reactions as unquestioning obedience. Their agents become addicted to orders. You will receive orders of course and in some cases you will be well-advised not to carry out the orders you receive... the members of all existing organizations are at some point your enemy. You will learn to know where this point is if you survive. You will receive your instructions in many ways. From books, street signs, films, in some cases from agents who purport to be and may actually be members of the organization. There is no certainty. Those who need certainty are of no interest to this organization. This is in point of fact a *non-organization* [italics in original]..." *The Ticket That Exploded* (10)

14. "...you remember they make happy cloaks from a submarine thing that subdues its prey through a neuro-contact and eats it alive – only the victim doesn't want to get away once it has sampled the pleasures of the cloak. It was a beautiful garment a living white like the white of a pearl, shivering softly with rippling lights, stirring with a terrible ecstatic movement of its own as the lethal symbiosis was established'... quoted from *Fury* by Henry Kuttner Mayflower Dell paperbacks..." *The Ticket That Exploded* (22)

15. Ibid. 26

16. Andre Gunder Frank. *Dependent Accumulation and Underdevelopment*. NY: Monthly Review Press, 1979. Frank's argument needs to be viewed in the context of Immanuel Wallerstein's intriguing concept of the Second World as the ideologically diverse but economically homogenous semi-periphery of the world-system, a.k.a. that spectrum of raw materials and labor-intensive manufacturing economies ranging from the Soviet Union to the Middle Eastern oil monarchies, and from Brazilian state capitalism to South Africa's apartheid regime. Wallerstein's point is not to foolishly equate the Soviet Far Eastern republics with the South African bantustans, but to underline the structural impediments to accumulation inherent to all raw materials economies, i.e. falling real prices for oil or minerals and a lack of foreign exchange to pay for extractive and refining technology.

17. *The Ticket That Exploded* (96)

18. *The Ticket That Exploded* (101)

19. This occurs when Bradley visits the alleged shaman:

"Came to a round metal chamber lined with switchboards and view screens – Embedded in a limestone dais was a grey foetal dwarf, his brain clearly visible under a thin membrane pulsed with colored lights as he controlled the switchboard –

"He make all music," said the guide –

The dwarf turned his eyeless face to Bradley – Bradley could feel radar beams map his outlines – Words passed through his mind on silver ticker tape –” *The Ticket That Exploded* (126)

20. *The Ticket That Exploded* (63)

21. Ibid. 78

22. Ibid. 102

23. Donna Haraway. “A Manifesto for Cyborgs.” *Socialist Review* 80 (1985) : 65-107.

24. *The Ticket That Exploded* (106)

25. Ibid. 139

Chapter 3

Nova Express

Nova Express is not only the creative summit of Burroughs' oeuvre, it is also one of the first classics of multinational culture. By mobilizing huge swathes of the Cold War media culture and pastiching a variety of modernist texts (among others, Beckett, Joyce and Kafka), Burroughs finally transcends the cybernetic framework of *The Ticket That Exploded*. Arguably, where the software innovations of the 1960s mini-computer foreshadowed the evolution of the software culture for decades to come, everywhere from programming languages to videogames to network switching protocols, *Nova Express* anticipated the trajectory of the post-Cold War media culture, everywhere from household electronics to videogames. In this respect, Burroughs' achievement is best understood in the context of two other key aesthetic innovators of the 1960s, namely Irish director and actor Patrick McGoochan and African American musician Jimi Hendrix.

McGoohan's epochal 1967 TV series *The Prisoner* practically invented the field of multinational video, by fusing the materials of national television, the Western European auteur film, the James Bond blockbuster and Samuel Beckett's theatrical modernism. For his part, Jimi Hendrix transformed the materials of jazz modernism, blues, rock and R & B into the basic vocabulary of multinational music, a.k.a. hip hop. Both artists excelled not just as performers and composers, but also as studio engineers and producers.¹ Something similar applies to Burroughs, whose editing and production skills are nowhere more evident than in Inspector J. Lee's scorching anti-manifesto, which outline the precise roles of the Nova Mob and the Nova Police:

"All that they [the Nova Mob] offer is a screen to cover retreat from the colony they have so disgracefully mismanaged. To cover travel arrangements so they will never have to pay the constituents they have betrayed and sold out. Once these arrangements are complete they will blow the place up behind them.

"And what does my program of total austerity and total resistance offer *you*? I offer you nothing. I am not a politician. These are conditions of total emergency. And these are my instructions for total emergency if carried out *now* could avert the total disaster *now* on tracks:

"Peoples of the earth, you have all been poisoned. [all italics in original] Convert all available stocks of morphine to apomorphine. Chemists, work round the clock on variation and synthesis of the apomorphine formulae. Apomorphine is the only agent that can disintoxicate you and cut the enemy beam off your line. Apomorphine and silence. I order total resistance directed against this conspiracy to pay off peoples of the earth in ersatz bullshit. I order total resistance directed against The Nova Conspiracy and all those engaged in it.

"The purpose of my writing is to expose and arrest Nova Criminals. In Naked Lunch, Soft Machine and Nova Express I show who they are and what they are doing and what they will do if they are not arrested. Minutes to go. Souls rotten from their orgasm drugs, flesh shuddering from their nova ovens, prisoners of the earth to come out. With your help we can occupy The Reality Studio and retake their universe of Fear Death and Monopoly –

(Signed) INSPECTOR J. LEE, NOVA POLICE²

This remarkable vision of an interstellar liberation movement facing off against a biologic neocolonialism does a number of unprecedented things. First, the biochemical or drug-steered body is evoked in the context of a worldwide mass media. Second, neocolonialism is diagnosed as a global condition, requiring truly planetary forms of resistance. Most important of all, the

nascent cybernetic subjects first glimpsed in *The Ticket That Exploded* march off the assembly line and into the streets, carrying the banner of the Frankfurt School's Great Refusal in one hand and a tape recorder in the other.

What is not clear, however, is how that cybernetic subject relates to the geopolitical conflicts of the 1960s, or what would motivate such a subject to follow the Inspector's advice and turn against the system in the first place. The aporia dwells in the heart of Burroughs' term, "peoples of the earth", which could mean anything from Hardt and Negri's revolutionary multitudes to xenophobic splinter nationalisms. At certain points, such ambiguities detonate into open clashes between the multinational and neo-national:

All nations sold out by liars and cowards. Liars who want time for the future negatives to develop stall you with more lying offers while hot crab people mass war to extermination with the film in Rome. These reports reek of nova, sold out job, shit birth and death. Your planet has been invaded. You are dogs on all tape. The entire planet is being developed into terminal identity and complete surrender.³

The potentially explosive mediatic puns on "tape" (electronics), "develop" (photography), and "terminal" (the computer) is short-circuited by the all-too-quick recourse to Hollywood's latest Roman Empire costume epic. This is basically a paranoid transcription of the national security state, the embryonic version of the suburban legends of Area 51 and alien abduction tales of the 1990s, which perceived elite conspiracies where they ought to have detected genuine social contradictions.

What prevents Burroughs' text from veering off into Cold War potboiler fiction, on the other hand, is its careful cataloguing of the secret resistances, non-identities and antinomies of the national security state. Each bust of the Nova Mob takes place by mobilizing the mediatic politics of a specific service-industry: thus the reporter who accompanies *The Intolerable Kid*,⁴ the traveling salesman running the Fish Poison Con on a quack doctor,⁵ or Winkhorst and the Lazarus Pharmaceutical Company, whose advertising campaigns subtly counterpoint the faith healing pitch of the sinister Death Dwarf.⁶ It is during the interrogation of the Death Dwarf, in fact, that we learn that the Nova criminals are neither white-collar criminals nor agents of the national security state, but represent something beyond both these terms, namely a rapacious interstellar colonialism.⁷

Most shocking of all, the Nova Police are *not* a utopian carbon copy of the gendarmes of the US Empire. They investigate without passing judgement, document rather than execute, and defuse conflicts rather than exacerbate them. Like the militant civil rights movements of the 1960s, they are peace-makers rather than peace-keepers. Unlike those movements, however, their authority is derived not from a politics of juridical space, but from a politics of corporeality:

What scared you all into time? Into body? Into shit? I will tell you: "*the word*". Alien Word "*the*". "*The*" word of Alien Enemy imprisons "*thee*" in Time. In Body. In Shit. Prisoner, come out. The great skies are open. I Hassan i Sabbah *rub out the word forever*. If you I cancel all your words forever. And the words of Hassan i Sabbah as also cancel. Cross all your skies see the silent writing of Brion Gysin Hassan i Sabbah: drew September 17, 1899 over New York.⁸

Here, Burroughs triangulates between the cinematic spectacle of Empire and the manifesto of the Third World revolutionary, by setting the multinational word in motion towards some sort of national language or linguistic sphere. While this word is clearly a proxy for the ubiquitous corporate icons, logos and brand-names of the consumer culture (“word begets image and image *is* virus”),⁹ the juxtaposition of sky-writing and the photograph of turn-of-the-century New York suggests a kind of cultural airspace, whose true referent is probably the stiletto glass boxes of Manhattan’s corporate office towers, the architectural epitome of global finance capital. What mediates between the corporate icon and the corporate skyline, on the other hand, is the mass media headline, relayed here by a sequence of exquisitely Derridean puns. First, the “word” is being erased forever, while the word “forever” is being erased; second, the pronoun “thee” dismantles the existential discourse of the Alien, the Other, and the Enemy; third, Hassan i Sabbah and/or Brion Gysin open the skies to a new kind of sky-writing, etc.¹⁰ The result is an aesthetics of word-fragments and strobing images, the rough equivalent of the earliest psychedelic light-shows and experiments in electronic musical feedback. Whereas the drumbeat motif of *The Soft Machine* and *The Ticket That Exploded* (“Word falling – photo falling – Breakthrough in Grey Room”) depicts the postmodern rush of consumable texts and images from the standpoint of the cutting room or editing studio, this passage mobilizes a set of specifically temporal registers: Time, Body and Shit are evidently metaphors for writing-time, bodies of text or written code, and the scandalous, excremental consumption of this signification. The leap from multinational form to content, on the other hand, does not take place until the fifth and final subsection of the second chapter, entitled *Shift Coordinate Points*, which splices an image and information war (“K9 was in combat with the alien mind screen – Magnetic claws feeling for virus punch cards – pulling him into vertiginous spins”)¹¹ into clips of Burroughs’ childhood memories of growing up in St. Louis, along with glimpses of Kiki, one of his Third World lovers. The passage continues:

K9 moved back into the combat area – Standing now in the Chinese youth sent the resistance message jolting clicking tilting through the pinball machine – Enemy plans exploded in a burst of rapid calculations – Clicking in punch cards of redirected orders – Crackling shortwave static – Bleeeeeeeeeeeeeeeep – Sound of thinking metal –
“Calling partisans of all nations – Word falling – Photo falling – Break through in Grey Room – Pinball led streets – Free doorways – Shift coordinate points –”¹²

The Burroughsian pun “in the Chinese youth” needs to be read as expansively as possible, as the constellation of two complementary narratives, one neo-national and the other multinational. The former projects an emancipatory neo-nationalism, somehow encompassing Mao’s Red Guards, the Taiwanese and Hong Kong textile workers slaving away in export-processing factories, and the Chinese immigrant communities beginning to mobilize for their cultural space in San Francisco, New York, Los Angeles, Seattle and Vancouver, all at once. The single most striking expression of this neo-nationalism was, of course, the Hong Kong films, and one can argue that the guerilla raids on the Board Books anticipate the Bruce Lee blockbusters, which launched a similar guerilla raid on the toolkit of the Hollywood action-adventure canon.

The multinational thread, on the other hand, is associated with cybernetic organisms and what seems to be a veritable eco-system of high-tech gadgets. The computerized pinball machine gives the game away: this is the direct predecessor of the 1970s videogames, which were typically designed by US firms and manufactured by a variety of East Asian contractors. All this

is confirmed by the third chapter, *Chinese Laundry*, which rewrites the ethnic small business or retail outlet into a multi-cultural resistance base, i.e. a front for the Nova Police's first organized sting against the Nova Mob. It is at this point that we are introduced to Uranian Willy, the first genuine cyborg of 20th century aesthetics:

Trapped in this dead whistle stop, surrounded by The Nova Guard, he still gave himself better than even chance on a crash out. Electrician in gasoline crack of history. His brain seared by white hot blasts. One hope left in the universe; Plan D.

He was not out of The Security Compound by a long way but he had rubbed off the word shackles and sounded the alarm to the shattered male forces of the earth:

THIS IS WAR TO EXTERMINATION. FIGHT CELL BY CELL THROUGH BODIES AND MIND
SCREENS OF THE EARTH. SOULS ROTTEN FROM THE ORGASM DRUG, FLESH
SHUDDERING FROM THE OVENS, PRISONERS OF THE EARTH COME OUT. STORM THE
STUDIO –

Plan D called for Total Exposure. Wise up all the marks everywhere. Show them the rigged wheel of Life-Time-Fortune. Storm The Reality Studio. And retake the universe.¹³

The pun on “word shackles” negates the culture-industry of the Pax Americana (Life, Time and Fortune magazines, as well as the Hollywood studio system) by means of a new collectivity, the prisoners of the Earth – in this case, the gay liberation movement which would indeed take to the streets five years after the text's publication, in the landmark Stonewall uprising. Almost as an afterthought, Burroughs stumbles upon the mediating code between the kinetic energy of the railroads and the informatic energy of the new electronics technologies. This is the embryonic form of the video-still, the literary version of the newly-invented instant replay:

The grey smoke drifted the grey that stops
shift cut tangle they breathe medium
the word cut shift patterns words
cut the insect tangle cut shift
that coats word cut breath silence
shift abdominal cut tangle stop word
holes.

He did not stop or turn around. Never look back. He had been a professional killer so long he did not remember anything else. Uranian born of Nova Conditions. You have to be free to remember and he was under sentence of death in Maximum Security Birth Death Universe. So he sounded the words that end “Word” –

Eye take back color from “word” –

Word dust everywhere now like soiled stucco on the buildings. Word dust without color drifting smoke streets. Explosive bio advance out of space to neon.¹⁴

Here some sort of video subject (“eye” = “I”) resolves the multinational word or icon into its informatic form (“word dust”) and mediatic content (“color”) respectively, by means of a drastic compression of the cut-up technique (in fact, the opening paragraph reads like the reflexive cut-up of a cut-up). Admittedly, this brief glimpse of a video landscape is just as quickly recontained

by recourse to the film noir cliches of gangster dialogue, neon streets and so forth. The cyborg subject is still operating within the confines of the cinematic panorama or existential gaze, a complicated way of saying Burroughs does not have a full-fledged set of video registers at his disposal (not terribly surprising, given that McGoohan would not invent the field of video until 1967).

Where *Chinese Laundry* truly shines, however, are the moments when the cyborg subject crashes into the cinematic object, jolting a postmodern logic of zones loose from a modernist logic of positions. This is most palpable in the episodes of open struggle between the Nova Police and the Mob, where the guerilla conflict between antagonistic images, symbols and data explodes into ferocious informatic combat. The secret agent is upstaged by the informatic agent, the prescient model for the hackers and system administrators of a later era, everywhere from the Regulator who bails out Uranian Willy, to the Technician who assists Pilot K9 on a hacker run through a primordial cyberspace matrix:

“Pilot K9, you are hit – back – down”

The medics turned drum music full blast through his head phones – “Apomorphine on the double” – Frequency scalpel sewing wounds with wire photo polka dots from The Image Bank – In three minutes K9 was back in combat driving pounding into a wall of black insect flak – The Enemy Installation went up in a searing white blast – Area of combat extended through the vast suburban concentration camps of England and America – Screaming Vampire Guards caught in stabbing stuttering light blast –

“Partisans of all nations, open fire – tilt – blast – pound – stab – strafe – kill –”

“Pilot K9, you are cut off – back. Back. Back before the whole fucking shit house goes up – Return to base immediately – Ride music beam back to base – Stay out of that time flak – All pilots ride Pan pipes back to base –”

The Technician mixed a bicarbonate of soda surveying the havoc on his view screen – It was impossible to estimate the damage – Anything put out up till now is like pulling a figure out of the air – Installations shattered – Personnel decimated – Board Books destroyed – Electric waves of resistance sweeping through mind screens of the earth – The message of Total Resistance on short wave of the world – *This is war to extermination – Shift linguals – Cut word lines – Vibrate tourists – Free doorways – Photo falling – Word falling – Break through in grey room – Calling Partisans of all nations – Towers, open fire –*¹⁵

Where the Bond blockbusters displaced the epic struggle of post-WW II decolonization to the margins of the First World war film, Burroughs presses the war film into the service of anti-colonial revolution. This is just the first in a series of stunning reversals, wherein the Nova Police slowly learn to crack the codes and reverse-engineer the media tools of the Nova Mob’s empire of total control. We first glimpse The Soft Typewriter, for example, inside the control system for one of Minraud’s hydroponics labs, designed to cultivate Death Dwarfs.¹⁶ Later, K9 calls in Technicians who turn the Typewriter’s mixing and editing functions to positive ends, enabling both the arrest of Mr. and Mrs. D. (“The error in enemy strategy is now obvious – It is machine strategy and the machine can be redirected”).¹⁷ Much later still, The Writ or legal injunction calls the malefic Gods of Time-Money-Junk to account for their crimes in the halls of the Biologic Courts.¹⁸

While the Typewriter clearly anticipates the personal computer, it functions here as a species of dedicated hardware or consumer electronics. In part, this is because the cyborg subject is defined as a kind of biologic computer, whose information-processing capacities can be radically altered by contact with other life-forms, hallucinogens, image and word-viruses and so forth. This is nicely captured by Burroughs’ rewriting of Watson and Crick’s discovery of DNA

in 1954 into the pervasive biologization of information:

“We found that simple binary coding systems were enough to contain the entire image however they required a large amount of storage space until it was found that the binary information could be written at the molecular level, and our entire image could be contained within a grain of sand. However it was found that these information molecules were not dead matter but exhibited a capacity for life which is found elsewhere in the form of virus. Our virus infects the human and creates our image in him. We first took our image and put it into code. A technical code developed by the information theorists. This code was written at the molecular level to save space, when it was found that the image material was not dead matter, but exhibited the same life cycle as the virus. This virus released upon the world would infect the entire population and turn them into our replicas, it was not safe to release the virus until we could be sure that the last groups to go replica would not notice. To this end we invented variety in many forms, variety that is of information content in a molecule, which, enfin, is always a permutation of the existing material. Information speeded up, slowed down, permuted, changed at random by radiating the virus material with high energy rays from cyclotrons, in short we have created an infinity of variety at the information level, sufficient to keep so-called scientists busy for ever exploring the ‘richness of nature’.”¹⁹

Readers with even the most cursory scientific knowledge of viruses or subatomic physics will quickly spot the scientific fallacies and howlers of this passage, but the whole point is that by getting the science utterly wrong, Burroughs somehow gets the aesthetics utterly right (in the same sense that any science fiction TV series worth its salt ought to break at least three laws of physics per episode).

What is really at stake here is the social history of computer hardware in the 1960s, namely the transition from sprawling mainframe computers to minicomputers. Whereas mainframes were available only to the largest corporations or secretive military labs (they were essential in building the H-bomb), minicomputers were the true spawning-grounds of the information culture. The very first programmed videogame, *Spacewar*, the first telecom switching protocols, as well as popular programming languages such as C, were all developed by university researchers on minicomputers. Put another way, the development of software tools outran the development of hardware during the 1960s.

The clash between hardware and software is outlined in the fourth chapter of *Nova Express*, titled *Crab Nebula*, where the Insect People of Minraud, a rigidly hierarchical species of vat-grown superbrains, battle it out with Agent K9, who responds with a series of tape-recorder cuts designed to identify, quarantine and neutralize the Minraud virus attack.²⁰ Minraud, with its armies of Death Dwarfs, Crab Guards and banks of mainframe computers, is of course a fairly obvious satire of the high-tech defense labs and research facilities of the US military-industrial complex, and it should as no surprise to learn that the crucial weakness of the latter is also the Achilles heel of the former: this is its dependence on an intricate bureaucracy of censorship, coercion and control. Instead of fighting Minraud on its own technological-military grounds, K9 attacks the mind screens of the controllers, forcing them to reflect on their role in the society they appear to dominate, but which in reality dominates them, too. The Crab Guards, for example, occasionally desert Minraud and help prisoners otherwise slated for extermination to escape, while individual controllers become haunted by the knowledge of their terrible isolation and end up joining the resistance movement.²¹ It is a testament to the greatness of Burroughs’ text that it neither condemns the agents of the total system, who are as unfree as the prisoners they process, nor privileges the author’s own biographical alienation above the suffering of any other

oppressed collectivity, but transforms each into an index of the other. By reconfirming Adorno's insight that everyone in late capitalism is, whether conscious of the fact or not, an agent of the total system, Burroughs opens the gateway to the potential global solidarity of the future.

This gateway glimmers in the middle of *Nova Express* very much like the first moment of the counter-culture, i.e. as a seemingly innocuous rupture or rift in the prevailing monopoly-national consumer culture, which suddenly explodes into a frenzy of multinational content. Rather than following the modernist logic of the positional breakthrough or the localized avant-garde innovation, the counter-culture outflanked the containment systems of the Cold War propaganda bureaus and culture-industries by materializing in a vast range of locations, from Paris to San Francisco to Mexico City to Prague, all at once.

This moment is preserved in Burroughs' text in the fault-line dividing the first four chapters from the last four: the former depict a series of positions, where the latter portray a series of spaces. The micropolitical and anti-colonial manifesto of *Last Words*, the initial diagnosis of the localized hustles and cons of the Nova Mob in *So Pack Your Ermines*, the Nova Police's counter-strike in *Chinese Laundry*, and finally the direct assault on the national security state by the informatic rebels of *Crab Nebula*, all project a utopian subjectivity which clashes violently with some sort of repressive totality. In the four subsequent chapters, however, the cultural space or habitus becomes objectively revolutionary in its own right: *From a Land of Grass Without Mirrors*, for example, is a savage double-take on neocolonialism; *Gave Proof Through the Night* rewrites the sinking of the Titanic into the crash and burn of the Pax Americana; while *This Horrible Case* and *Pay Color* explicitly pun planetary-wide juridical and aesthetic revolutions, respectively. Monopoly-national time becomes multinational space, at the same moment that the cybernetic subject turns into a micropolitical one. Simultaneously, the existential manifesto is displaced by an embryonic Web-document, variously rendered as a flesh-writing or inscription on the body electronic, while the propaganda machines of the battling national security states are themselves upstaged by the recording machinery of an interstellar courtroom.

To make a long story short, the middle of *Nova Express* marks the transition from international aesthetics to its multinational successor. The very title of *From a Land of Grass* deftly offsets the cinematic vista of the American prairie or Argentine pampas, for example, with a mass-cultural icon notoriously unsympathetic to mirrors, namely the vampire; in the opening scene of the chapter we witness a young recruit, The Cadet, joining the underground resistance of a brutal boot camp called (global allegory, indeed!) World Trade School K9.²² The mention of K9 is not accidental: K9 is both an agent of the Nova Police, a place, and still later, in *Gave Proof*, the name of one of the lifeboats ("Passengers fighting around Life Boat K9"), that is to say an instrumentalized body or transport vehicle which shuttles between the realms of the monopoly-national and the global.²³ Later in the same chapter, Burroughs satirizes one of the most idiosyncratic mass-cultural rituals of the Pax Americana of them all, namely the singing of the national anthem before sports events, only not on the grounds of the sports culture, but in the juridical realm of the Biologic Courts:

Corridors and patios and porticos of The Biologic Courts – Swarming with terminal life forms desperately seeking extension of canceled permissos and residence certificates – Brokers, fixers, runners, debarred lawyers, all claiming family connection with court officials – Professional half-brothers and second cousins twice removed – Petitioners and plaintiffs screaming through the halls – Holding up insect claws, animal and bird parts, all manner of diseases and deformities received “In the service” of distant fingers –

Shrieking for compensations and attempting to corrupt or influence the judges in a thousand languages living and dead, in color flash and nerve talk, catatonic dances and pantomimes illustrating their horrible conditions which many have tattooed on their flesh to the bone and silently picket the audience chamber – Others carry photo-collage banners and TV screens flickering their claims – Willy’s attorneys served the necessary low pressure processes and The Controllers were sucked into the audience chamber for the The First Hearing – Green People in limestone calm – Remote green contempt for all feelings and proclivities of the animal host they had invaded with inexorable moves of Time-Virus-Birth-Death – With their diseases and orgasm drugs and their sexless parasite life forms – Heavy Metal People of Uranus wrapped in cool blue mist of vaporized bank notes – And The Insect People of Minraud with metal music – Cold insect brains like white hot buzz saws sharpened in the Ovens – The judge, many light years away from possibility of corruption, grey and calm with inflexible authority reads the brief – He appears sometimes as a slim young man in short sleeves then middle-aged and slim young man in short sleeves then middle-aged and redfaced sometimes very old like yellow ivory “My God what a mess” – he said at last – “Quiet all of you – You all understand I hope what is meant by biologic mediation – This means that the mediating life forms must simultaneously lay aside all defenses and all weapons – it comes to the same thing – and all connection with retrospective controllers under space conditions merge into a single being which may or may not be successful...”²⁴

The ingenious quotation of the indeterminate Mr. Knott from Beckett’s *Watt* frames one of the most lucid descriptions of the class fractions of multinational capital ever written: the Heavy Metal people of Uranus are bankers and business-people, the Insect People of Minraud are military-industrial electronics engineers and weapons designers, while the Green or Vegetable People are parasitic rentiers who subsist on the biochemical and cultural addictions of their mammalian hosts. All are called to account for the collectively irrational consequences of their individually rational actions, not by recourse to some external compulsion or transcendent authority, but by revealing their social roles and modus operandi to a multinational audience(signaled by “color flash and nerve talk” and mobile, portable TV screens). By raising the experience of his own global refugee status to a universal, Burroughs arraigns the metropole of the total system in the world-court of the periphery, decoding the hegemonic logic of consumer capitalism (the ceaseless expansion of the commodity form) as precisely the sort of natural history which the metropolises, via the ideology of neocolonialism, routinely accuse their dominated peripheries of blindly and savagely perpetuating.

Yet *Nova Express* does not idealistically dissolve the First World into the Third, nor does it cynically gloss the Third World as a mere extension of social processes centered in the First. Rather, both of these things are set into motion in the context of a vastly enlarged Second World, a.k.a. a mediating semi-periphery. Our first glimpse of this latter is in the *A Distant Thank-You* subsection of the fifth chapter, where a group of expatriate adventurers attempts to purchase a forged exit visa from Willy the Rube, in order to escape the neocolonial zone they have been pillaging. Their mansion, a pastiche of countless historical periods, is set against a scenic landscape inhabited by the green boy-girls familiar to us from *The Ticket That Exploded*, as well as two new species: the Mongolian Archers and the peaceful, utterly benevolent Lemur People.²⁵ Whereas the Archers seem to be the product of the most advanced bioengineering and weapons technologies, the Lemurs are symbols of an unspoiled, reconciled ecology. Unlike the boy-girls, however, neither of these species is under the control of the colonists in question; the former have a loose working arrangement with Willy, but nothing more, while the latter simply die in any sort of captivity, even the mental kind, i.e. are uncolonizable by definition (here, too, Willy has some special affinity or unique bond with these creatures).

The result is uncannily reminiscent of the work of quite another postmodern innovator, namely the cybernetic folktales of Italo Calvino's 1967 *Cosmicomics*, which conjure up a Southern European literary postmodernism out of the Fiat-engineered collision of Italian neorealism and Northamerican science-fiction. In the specific context of the 1960s world-system, the Mongolian Archers are an exoticized anagram of the armed wing of the anti-colonial movement, i.e. the multiple insurgencies breaking out everywhere from Cuba to Vietnam, while the Lemurs incarnate the new space of a quicksilver cultural resistance beyond all representation, the domain of a planetary political unconscious worthy of Stanislaw Lem's *Solaris*.

What makes the last third of *Nova Express* so intriguing is the degree to which Burroughs pushes the cyborg to its narrative limit. In terms of form, the cyborg was always a compromise between a monopoly-national media infrastructure and a multinational information aesthetics. In terms of content, it is the evolutionary link between the Cold War or thermonuclear subject of the 1950s and the micropolitical or telecommunicatory one of the 1970s (in fact, the cultural moment of the cyborg predates the arrival of the counter-culture).²⁶ Burroughs' utterly pragmatic solution is to retrofit the cyborg with psychotropic antennae, as it were, designed to cull a narrow set of informatic registers from an expanded range of mass-cultural and mediatic materials. This is most evident in the dazzling slippage of medical-biological and legal-juridical terminologies in the seventh chapter, *This Horrible Case*, which contains some of the funniest sequences of Burroughs' entire oeuvre. Heavily salted with quotes from Kafka's *The Trial* ("Biologic Counselors must be writers that is only writers can qualify since the function of a counsel or is to *create* facts that will tend to open biologic potentials for his client"),²⁷ the result reads like a bizarre fusion of Kafka's nature theater of Oklahoma with the sentient robot of *Forbidden Planet*: the electronic body crashes into the hardwired software code, while cybernetic post-history crashes into biochemical prehistory. The result is the informatization of natural history, the literal and figurative nova express which ferries the cyborg subject into the realm of 21st century aesthetics.²⁸

The social energies unleashed by this process radiate from the final chapter, *Pay Color*, like a newborn star. The chapter begins by linking the radical media underground (represented by the Subliminal Kid, a defector from the Nova Mob) to the utopian gender micropolitics of Hassan i Sabbah. The result is a revolutionary reconversion of economic mediations into cultural and aesthetic ones:

"THE SUBLIMINAL KID" moved in and took over bars cafes and juke boxes of the world cities and installed radio transmitters and microphones in each bar so that the music and talk of any bar could be heard in all his bars and he had tape recorders in each bar that played and recorded at arbitrary intervals and his agents moved back and forth with portable tape recorders and brought back street sound and talk and music and poured it into his recorder array so he set waves and eddies and tornadoes of sound down all your streets and by the river of all language – Word dust drifted streets of broken music car horns and air hammers – The Word broken pounded twisted exploded in smoke...²⁹

In terms of form, this is a striking anticipation of the multinational musical studio, with its taped libraries of prerecorded sounds and electronic effects. In terms of content, the multinational Word, an anagram for the advertising jingle, slogan or musical lyric, furnishes the raw material for a drastic expansion of the auditory sensorium – the transition from the counter-cultural happening into the stadium concert. A few lines later, something similar happens to the cinema, as eight-millimeter home movies and billboard images of the Pax Americana are refashioned into

the building-blocks of video:

Air hammers word and image explosive bio-advance – A million drifting screens on the walls of his city projected mixing sound of any bar could be heard in all Westerns and film of all times played and recorded at the people back and forth with portable cameras and telescope lenses poured eddies and tornadoes of sound and camera array until soon city where he moved everywhere a Western movie in Hongkong or the Aztec sound talk suburban America and all accents and language mixed and fused and people shifted language and accent in mid-sentence Aztec priest and spilled it man woman or beast in all language – So that People-City moved in swirls and no one knew what he was going out of space to neon streets –

*“Nothing is True – Everything is Permitted –” Last words Hassan i Sabbah...*³⁰

The People-City signifies more than just a new type of global urban space, it also denotes a new type of corporeality, that is to say the utopian intersection of First World mediatic forms with Second World bodies. This is most evident in the *Smorbrot* subsection of the chapter, which details the joyous homo-erotic union of Chinese, Mexican, and Scandinavian youths, interspersed with references to Japanese tattoos, African American and Arab drum music, carnivals and high wire acts.

If there is a price to be paid for this dramatic step forwards, it is the obsolescence of the monopoly-era word and cinematic photo-image, which lose their power to scandalize or shock their audience, something subtly acknowledged by the neutralized “sound and image flakes”³¹ which fall, like Joycean snow, over the living and dead icons of a henceforth mediatized landscape. The great symbolic compensation for this loss is, of course, Hassan i Sabbah’s video sermon on the trinity of red, blue and green – the three primary colors, of course, of the pixels on a 20th century TV screen. At the zenith of the US Empire, Burroughs’ assemblage of Second World bodies fluoresces with properly hallucinatory splendor, radiating an unknowable informatic surplus (“Cortex winds overflowing into mutinous areas hearing color seeing”)³² which is more than just a fleeting moment of resistance against that Empire. It is also a priceless bequest to the far future: the messianic gift of multinational time, which opens the doorway to multinational space.

Endnotes

1. For an in-depth analysis of McGoohan's work, see chapters 2 and 3 in my own *The World is Watching*, Southern Illinois UP: Carbondale, 2003.
2. William S. Burroughs. *Nova Express*. NY: Grove Press, 1964 (6-7)
3. Ibid. (13)
4. Ibid. (8-12)
5. Ibid. (23-25)
6. Ibid. (45)
7. This is also, it should be noted, Burroughs' first explicit use of a biological narrative, which reconverts the national cultural space into a multinational or ecological niche, thereby subverting what E.P. Thompson called the exterminist logic of the Cold War:

“‘Reality’ is simply a more or less constant scanning pattern – The scanning pattern we accept as ‘reality’ has been imposed by the controlling power on this planet, a power primarily oriented towards total control – In order to retain control they have moved to monopolize and deactivate the hallucinogen drugs by effecting noxious alterations on a molecular level –

The basic nova mechanism is very simple: Always create as many insoluble conflicts as possible and always aggravate existing conflicts – This is done by dumping life forms with incompatible conditions of existence on the same planet – There is of course nothing “wrong” about any given life form since “wrong” only has reference to conflicts with other life forms – The point is these forms should not be on the same planet – Their conditions of life are basically incompatible in present time form and it is precisely the work of the Nova Mob to see that they remain in present time form, to create and aggravate the conflicts that lead to the explosion of a planet that is to nova – At any given time recording devices fix the nature of absolute need and dictate the use of total weapons...” Ibid. (53)

The flip side of this biologization of culture is the informatization of identity, which Burroughs manages to sneak in via a wonderful parody of the FBI dragnet:

“The point at which the criminal controller intersects a three-dimensional human agent is known as a “a coordinate point” – And if there is one thing that carries over from one human host to another and establishes identity of the controller it is habit: idiosyncrasies, vices, food preferences – (we were able to trace Hamburger Mary through her fondness for peanut butter) a gesture, a certain smile, a special look, that is to say the style of the controller – A chain smoker will always operate through chain smokers, an addict through addicts – Now a single controller can operate through thousands of human agents, but he must have a line of coordinate points – Some move on junk lines through addicts of the earth, others move on lines of certain sexual practices and so forth – It is only when we can block the controller out of all coordinate points available to him and flush him out from host cover that we can make a definite arrest – Otherwise the criminal escapes to other coordinates...” Ibid. (56)

8. Ibid. (4-5)

9. Ibid. (48)

10. Though there is no direct evidence that Burroughs was familiar with Sartre's oeuvre, it's probably not an accident that the basic terminology of existentialism is employed here (the Other, the Alien, and of course the unconscious homage to *The Words*, Sartre's classic autobiography). The flip side of Burroughs' remarkable editing skills is a seemingly osmotic ability to absorb the most progressive mass-cultural materials of the 1950s and 1960s, while quoting, citing or pastiching everything from sci-fi potboilers to the classic modernists (e.g. Lautreamont on page 42, T.S. Eliot's *The Wasteland* on pages 115-116; Kafka's *The Trial* on pages 138-139; Joyce's *Dubliners* on page 179; etc.).

11. Ibid. (30)

12. Ibid. (31)

13. Ibid. (59)

14. Ibid. (61)

15. Ibid. (66-67)

16. Ibid. (66)

17. Ibid. (85)

18. Ibid. (130)

19. Ibid. (49)

20. Consider this passage:

“Controller of The Crab Nebula on a slag heap of smouldering metal under the white hot sky channels all his pain into control thinking – He is protected by heat and crab guards and the brains now armed with The Blazing Photo from Hiroshima and Nagasaki – The brains under his control are encased in a vast structure of steel and crystal spinning thought patterns that control whole galaxies thousand years ahead on the chessboard of virus screens and juxtaposition formulae –

So the Insect People Of Minraud formed an alliance with the Virus Power Of The Vegetable People to occupy planet earth...” Ibid (71-72).

K9's response is to diagnose the virus, find out how it operates, and then erase it:

“What does virus do wherever it can dissolve a hole and find traction? – It starts eating – and what does it do with what it eats? – It makes exact copies of itself that start eating to make more

copies that start eating to make more copies that start eating and so forth to the virus power the fear hate virus slowly replaces the host with virus copies – Program empty body – A vast tapeworm of bring down word and image moving through your mind screen always at the same speed on a slow hydraulic-spine axis like the cylinder gimmick in the adding machine... The counter move is very simple – This is machine strategy and the machine can be redirected – Record for ten minutes on a tape recorder – Now run the tape back without playing and cut in other words at random – Where you have cut in and re-recorded words are wiped off the tape and new words in their place – You have turned time back ten minutes and wiped electromagnetic word patterns off the tape and substituted other patterns – You can do the same with mind tape after working with the tape recorder – (This takes some experimentation) – The old mind tapes can be wiped clean – Magnetic word dust falling from old patterns...” Ibid. (73-74)

21. “Again at the window that never was mine – Reflected word scrawled by some boy – Greatest of all waiting lapses – Five years – The ticket exploded in the air – For I dont know – *I do not know* human dreams – Never was mine – Waiting lapse – Caught in the door – Explosive fragrance – Love between light and shadow – The few who lived cross the wounded galaxies – Love? – Five years I grew muttering in the ice – Dead sun reached flesh with its wandering dream...” Ibid. (81)

22. Ibid. (92)

23. Ibid. (123)

24. Ibid. (127-128)

25. Ibid. (111-112)

26. It’s one of the ironies of history that the cyborg, a progressive symbol in the 1960s, became one of the leading symbols of reactionary neoconservatism in the 1980s. As an ideology, Thatcherism ranked electronically-equipped military hardware above the consumer-driven software market; the Pentagon-controlled supercomputer was seen as the future of computing, not the PC. This was often conjoined to a technocratic disdain for mere human beings, e.g. the hollow boasts of MIT researchers flush with Pentagon contracts in the early 1980s, who claimed that hardware-driven AIs or artificial intelligences would do all our thinking for us by the end of the decade. In fact, this claim was class ideology through and through. US auto firms instituted a series of disastrous rationalization schemes, tossing vast numbers of workers out into the street and replacing them with hideously expensive and hopelessly inflexible white elephants, while falsely accusing Japanese car companies of unfair competition. Reagan’s firing of US air traffic controllers, the opening shot of an all-out war on the living-standards of ordinary Americans, was excused on the grounds that the air traffic control system was going to be automated anyway. Both automation projects ended in abysmal failure. The US auto industry was rescued only by the dramatic devaluation of the US dollar and import tariffs, while the original project to computerize the air traffic control system was scrapped. By contrast, Europe and Japan pursued a relatively enlightened politics of productivity, emphasizing worker-centered systems of small-lot, high-volume production, continuous innovation, and total quality control (e.g. Volvoism, Toyotism). Japan invested heavily in civilian R & D and thereby wrested control over major

segments of the computer market from US firms; France created Minitel, a messaging service which became one of the most important models for the Internet, and the EC and EU's messaging standards enabled mobile phone firms such as Nokia to leave US producers such as Motorola in the dust.

27. Ibid. (137)

28. This frequently borders on self-parody:

“Electric defense frequently determined the whole civilization and proceedings – Especially when a case fear desperate position and advantage suddenly taken out of their hands – The case had simply reached incredible life forms – Even the accused was beyond altered pressure – The very top operation – The client of mucus and urine said the man was an alien – Unusual mucus coughing enemy “oxygen” up from the stairway – Speed up movie made such forms by overwhelming gravity supply – Flesh frozen to supply a shocking emergency case – Amino acid directs all movement – won code on Grey Veil...” Ibid. (141)

Somewhat later, Burroughs mentions the notion of amino acids as a form of code (DNA had been discovered in 1954, only ten years before Burroughs completed his text):

“‘c-Sequential choice i.e. flesh frozen to amino acid determines the next state according to’ – That is a ‘book’ ...

Ally information at the verbal level – Could he keep Form A seen parasitic? – Or could end be achieved by present interview? – Array treated as a whole replaced history of life? Word falling photo falling tapes being blank...

‘Clearly the whole defense must be experiments with two tape recorder mutations.’” Ibid. (145-146)

29. Ibid. (147)

30. Ibid. (148-149)

31. Ibid. (163, 175, 178)

32. Ibid. (166)

Chapter 4

Neuromancer

“In the loneliness of airports/ I exhale...” Heiner Müller. *The Hamletmachine*. Berlin: Rotbuch Verlag, 1977 (45)

“Case awoke from a dream of airports, of Molly’s dark leathers moving ahead of him through the concourses of Narita, Schipol, Orly...” William Gibson. *Neuromancer*. NY: Ace Books, 1984 (43)

One of the most intriguing contradictions of the 1980s information culture was the fact that two of its most innovative artists – playwright Heiner Müller and novelist William Gibson – were located not in the beating heart of Silicon Valley, downtown Tokyo or metropolitan Frankfurt, but in the subaltern zones of East Germany and Vancouver, Canada, two semi-peripheries of the Cold War world-system which later mutated into frontier zones of the European Union and the Pacific Rim, respectively. As a resident of East Germany, a Second World zone literally walled off from the multinational consumer culture by its one-party state, Müller’s greatest theatrical works display what might be called an aesthetics of export-processing resistance – that is to say, they splice a long-running tradition of politicized and deeply subversive Eastern European media productions (Polish filmmakers Andrzej Wajda and Krystof Kieslowski, Czech animator Jan Svankmajer, and countless others) into a variety of multinational forms.

The result was a multinational Eurotheater capable of playing on *both* sides of the Berlin Wall, simultaneously. Müller’s 1977 *Hamletmachine*, to take only the most prominent example, was both the video play-by-play for the Velvet revolutions of 1989-91, as well as the tocsin of the subsequent resistance movements to neoliberalism throughout the core regions of the EU in the 1990s. In the more heavily mediatized zone of Canada, on the other hand, the sheer ubiquity of an imported US consumerism and the direct onslaught of neo-conservatism fostered a rather different cultural dialectic. Gibson’s ingenious response was to outflank the deeply conservative media culture of the day on its own grounds, by mobilizing the mediatic tropes of the East Asian region – at that point, still an industrial semi-periphery vis-à-vis the US, and not yet a metropole in its own right – against the hegemonic Thatcherite aesthetics of the early 1980s, epitomized by James Cameron’s *The Terminator* and *Aliens*.

In the specific field of the information culture, Gibson’s greatest achievement was picking up where Burroughs left off, by transforming the Cold War aerospace imaginary mapped out by Burroughs (pilot K9) into the plebian spaces of multinational capital (the airports of Tokyo, Amsterdam, and Paris quoted above). What might be called the Boeing sublime, a.k.a. the pilot’s movement through militarized airspace, is upstaged by the Airbus materialism of the rush of individual subjects through a congested, multinational crowd-space. This crowd-space is not necessarily limited to the urban shopping mall or corporate atrium, but includes anything from globe-hopping business professionals and tourists to hitchhikers and refugees, something subtly relayed in Müller’s magnificent text as the constellation of the airport with the fragments of the disposable snapshot or Polaroid. Travel-time becomes image-space, in a gesture which powerfully anticipates Wong Kar-Wai’s 1994 *Chungking Express*, a film which recuperated Hong Kong’s quasi-national airspace – grainy images of model airplanes and model stewardesses

– from the standpoint of the multinational music video (this is confirmed by the closing credits of this film, a deliciously self-referential cover of the Cranberries, a band hailing from quite another former British colony turned Information Age economic success story: Ireland!).

Gibson's own text, on the other hand, has its closest mediatic analogue in John Woo's supercharged Hong Kong action thrillers, which transformed the office blocks, apartments and warehouses of postmodern Hong Kong into the neon datascape of the 3D videogame. One of the most astonishing features of *Neuromancer* is, indeed, its extraordinary ear for the nonstop rhythms, mediatic cadences and informatic codes of the multinational era, which implies an equivalent sensitivity to the local or neo-national versions of all these things. From the standpoint of form, *Neuromancer* is a global hack into the cultural databanks of Cold War nationalism, and the authentic realization of Fredric Jameson's clarion call for an aesthetics of cognitive mapping or global cultural praxis. This call is well worth citing in full:

Rather, I want to suggest that our faulty representations of some immense communicational and computer network are themselves but a distorted figuration of something even deeper, namely, the whole world system of a present-day multinational capitalism. The technology of contemporary society is therefore mesmerizing and fascinating not so much in its own right but because it seems to offer some privileged representational shorthand for grasping a network of power and control even more difficult for our minds and imaginations to grasp: the whole new decentered global network of the third stage of capital itself. This is a figural process presently best observed in a whole mode of contemporary entertainment literature – one is tempted to characterize it as 'high-tech paranoia' – in which the circuits and networks of some putative global computer hookup are narratively mobilized by labyrinthine conspiracies of deadly interlocking and competing information agencies in a complexity often beyond the capacity of the normal reading mind. Yet conspiracy theory (and its garish narrative manifestations) must be seen as a degraded attempt – through the figuration of advanced technology – to think the impossible totality of the contemporary world system. It is in terms of that enormous and threatening, yet only dimly perceivable, other reality of economic and social institutions that, in my opinion, the postmodern sublime can alone be adequately theorized.¹

What Gibson gives us, as we shall see, are the means by which we can think that totality, navigate its networks, and analyze its sublime. *Neuromancer* is not a single hacking run, but rather a whole series of hacks into various interlocking financial, economic and cultural databanks – what amounts, in effect, to an unprecedented burn on the total system, engineered by a new kind of collective resistance.

This strategy poses a number of technical challenges for the reader, not the least of which is the dazzling narrative simplicity of Gibson's text, which is really the flip side of an unrivaled density. First-time readers, in particular, are often completely taken in by the text's user-friendly interface, and blaze through the novel in a couple of hours. A closer reading is rewarded with unexpectedly sharp details, surprising colorations of meaning, motifs etched with nanometrical precision, which gradually form vast multinational constellations. This precision is not metaphorical. *Neuromancer* popularized, among other things, the very term "cyberspace", search engines (the Flatline), notebook computers (the Ono-Sendai) and even smart cards (electronic credit chips as well as the "microsofts" which, in Gibson's story, are not software programs, but biocompatible chip-implants), decades before these things became daily realities.² Something similar applies to the plot, which transforms the narrative superstructures of the detective story, the murder-mystery, the action-thriller, the sci-fi blockbuster, the reggae dub, the horror film and

the Hong Kong video into something new.

It is therefore the ultimate irony to discover that what makes *Neuromancer* one of the transcendental works of art of the late 20th century is not, after all, its legendary acumen with technology, but its stubborn resistance to such. Over and over again, Gibson will insist that, to paraphrase Adorno, the totality precedes the particular, i.e. that the social matrix driving the technology is far more important than any given piece of technology or consumer therein. What makes this possible is the transformation of the comparatively unwieldy discursive structures of Burroughs' *Nova Express*, stitched together by the notorious telegraphic hyphens, into nimble informatic registers: biochemistry accedes to genetic engineering, electronics to software, and the cyborg to the hacker. The technological becomes the political, while the political becomes the corporeal.³ This corporeality is not, however, oriented towards a national or Cold War body politic, but is derived out of a new type of multinational code. Witness this potted history of the Internet, which is Gibson's first coherent attempt to grapple with the problem of how to represent the unrepresentable domain of cyberspace:

'The matrix has its roots in primitive arcade games,' said the voice-over, 'in early graphics programs and military experimentation with cranial jacks.' On the Sony, a two-dimensional space war faded behind a forest of mathematically generated ferns, demonstrating the spacial possibilities of logarithmic spirals; cold blue military footage burned through, lab animals wired into test systems, helmets feeding into fire control circuits of tanks and war planes. 'Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts... A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding...'⁴

Not the technical glitches of the computer system, but the cultural dissonances of the *human* system are at issue here: cold blue military footage, lab animals, warplanes and tanks, a two-dimensional videogame, and fractal fern-patterns are all subsumed under the patterns of city lights viewed from an airplane window, i.e. the civilian retake of a heavily militarized aerospace sublime. This description turns out to be an excerpt from a children's show about the matrix, replayed on Case's Hosaka computer, a broad hint at one other significant source of visual material, namely the North American children's TV programs of the 1970s (the spectrum from Sesame Street to Warner Brothers cartoons).

It should be emphasized that none of these materials are drawn from the hegemonic visual forms of the 1970s, e.g. the stadium-concert special effects of *Close Encounters of the Third Kind*, or the aerospace sublime of *Star Wars*. In contrast to the classic modernist artists, Gibson does not simply parody or quote certain aspects of mainstream mass-culture – in the context of the 1970s, this would include everything from the disaster film to the post-Watergate paranoid narrative, and from the rockumentary to the special effects-soaked sci-fi thriller. Rather, Gibson turns the the consumer culture into its own worst enemy: where the great modernist works subverted styles, their multinational successors subvert entire mediatic genres. Thus the attack on Sense/Net reprises punk rock's ferocious assault on the recording industry, Molly's simstim rig (the prescient anticipation of the webcam) negates the Hollywood action thriller, and even Case's dream-contact with the artificial intelligences or AIs negates the mainstream paranoid thriller and big-budget sci-fi spectacular.

This sheds an illuminating light on Jameson's classic definition of postmodernism as the

practice of pastiche rather than parody, i.e. a multiplicity of styles or profusion of dead masks, as opposed to the avant-garde logic of the modernisms, which sought to carve out semi-autonomous or internationalized spaces within a larger monopoly-national framework. Jameson has long noted that these spaces were more than just an allergic reaction to commercializing pressures of the culture-industry, but also registered the need for new forms of specialization in the division of aesthetic labor (something visible in the evolution of auteur cinema vis-à-vis the studio system, or the modernist jazz ensemble vis-à-vis the music industry). Adorno was the first to point out that the great modernist works were as incommensurable with each other as with the mass-culture they reacted against: one cannot really envision Beckett's universe coexisting with Genet's, for example, nor the Kurosawa spectacular side-by-side with the Hitchcock thriller. This is true even within a given artist's own canon; each of the various chapters of Joyce's *Ulysses*, as well as the successive compositional innovations of Coltrane's free jazz period, stage their claim to aesthetic autonomy on the radical break with what came before. Multinational aesthetics, however, does not operate on the modernist logic of positions or situations, set within a specific national or international aesthetic space, but relies instead on highly mobile models or templates which replicate, virus-style, across a multinational array of cultural spaces and platforms.

Gibson's text overflows with such templates, which have the same general function as the cut-up technique in Burroughs, i.e. reorganize an otherwise disparate or unwieldy range of national, neo-national and international cultural materials into a global icon or tag. The result is very much like the earliest graphical operating systems, which replaced language-based command lines with icons or graphical symbols. Probably the most obvious example here is Case, whose name signals the bland, platinum-grey shells which house the vast majority of computer hardware. Similarly, Molly, the razor-girl bodyguard, echoes the gangster moll; Armitage, a.k.a. Corto, the ex-Special Forces veteran now working for Wintermute, turns out to be an anagram for a cancelled-out or destroyed Midwestern identity (even the name suggests something between a shady arms dealer and a Wall Street arbitrageur); while the Dixie Flatline, the recorded construct of deceased hacker McCoy Pauley, symbolizes the digital service economy of the New South (Atlanta, Pauley's home turf, was the spawning-grounds for Coke as well as CNN).⁵

These tags are not limited to exclusively North American cultural zones, but can access a wide range of multinational materials, as with the microsofts or silicon chips which users slot directly into their specially-adapted neural cortexes, signifying the fusion of informatic and biologic technologies. It's worth stressing that Gibson had absolutely no idea that the Microsoft corporation even existed at that point. In various interviews, Gibson noted that he has no formal programming experience, and did not even own a personal computer in 1983: the ultimate hacker novel was written on a low-tech typewriter. In various interviews, Gibson has noted that his initial inspiration for the matrix came from watching teenagers playing the arcade videogames of the early 1980s. In fact, Gibson simply took the two most prevalent linguistic symbols of the information revolution, the "microcomputer" and "software", and streamlined the result into a single user-friendly icon. Similar strategies are responsible for most of the memorable inventions of the text, e.g. "cyberspace" (cybernetics plus aerospace), the cyberspace "deck" (combining keyboards, joysticks and videogame consoles), "derm" (for dermatological skin-patches), and "vat" (for the artificial life-support systems in which body parts are grown).

Things start to get really interesting, however, when we move from the realm of multinational form to content. Gibson's first move here is to recode the shift from corporate mainframes to university-based minicomputers and thence to personal microcomputers from the

standpoint of a universal social mediation, rather than technology per se. That is, where mainstream narratives generally limit themselves to a utopian (or dystopian) account of the evolution of a specific hardware system, chip design, software language or what have you, Gibson locates all these things within some larger marketplace of data production, dissemination and consumption: the demesne, in short, of the information commodity. Each informatic commodity is tracked down, detective-style, back to its corresponding social and political superstructure, ranging from the Iron Triangle and covert-ops of the military-industrial complex, to the simstim broadcasts and orbital vacation resorts of global entertainment and media firms, all the way to the corporate security agencies, rentier overlords, AIs and Turing Registry agents battling for ultimate control of the matrix.

One of the most stunning examples of the power of this strategy is Gibson's invention of the term "ice" to describe the otherwise impalpable corporate security and anti-virus programs of the matrix, a term which is later broadened to include the cryogenic freezer systems which store living creatures in a state of suspended animation (they are said to be "on ice") – a properly neocolonial constellation between bodies of corporate data and human bodies which is deeply unflattering, to say the least, to the corporations in question.

Second, the remaining monopoly-national registers still faintly visible in William Burroughs' work (progressive nationalisms which coexist side-by-side with the remnants of the Hollywood studio system, rather like outdated film reels stacked up next to televisions, or scratchy radio broadcasts piped over telecommunication networks) are replaced by a compact, iridescent spectrum of aesthetic materials, arranged in a gradient from what we'll call the neo-national to the multinational. It should be emphasized here that the neo-national is not delimited to the progressive nationalisms of the Third World, but can encompass everything from the politically ambiguous semi-peripheral nationalisms of the Second World, a.k.a. Eastern Europe and Southeast Asia, as well as retrograde nationalisms within the industrialized countries themselves. In like manner, the multinational is hardly limited to Anglo-American consumerism, but encompasses the consumer and business cultures of the European Union and the East Asian region.

Informatic form and multinational content converge not, as one might expect, in a specific set of technologies, but in a series of global spaces located within neo-national zones of various kinds, e.g. the Ninsei enclave of Chiba City, an industrial exurb of Tokyo; Sense/Net's Manhattan headquarters, located in the Sprawl; and finally the Villa Straylight, the Tessier-Ashpool family residence in Freeside. Intriguingly, each of these spaces is endowed with its own characteristic mode of visual aesthetics, ranging from the holographic arcade videogames of Ninsei to the pre-recorded skies of Freeside. The effect is to press a set of mediatic forms into the service of a technologically-reproducible Nature or set of natural bodies, as with this fascinating description of Chiba's docks:

Now he slept in the cheapest coffins, the ones nearest the port, beneath the quartz-halogen floods that lit the docks all night like vast stages; where you couldn't see the lights of Tokyo for the glare of the television sky, not even the towering hologram logo of the Fuji Electric Company, and Tokyo Bay was a black expanse where gulls wheeled above drifting shoals of white styrofoam. Behind the port lay the city, factory domes dominated by the vast cubes of corporate arcologies. Port and city were divided by a narrow borderland of older streets, an area with no official name. Night City, with Ninsei at its heart. By day, the bars down Ninsei were shuttered and featureless, the neon dead, the holograms inert, waiting, under the poisoned silver sky.⁶

This is a dead ringer for the arcade videogame aesthetics of the early 1980s, which replaced the cinematic vista or panorama with greatly simplified graphical codes. The dock-lights of the port, the circular factory domes, and the silhouettes of the giant office-towers function like the overlapping tiers of arcade-style backgrounds, with the transcendental hologram of Fuji Electric helpfully standing in for the videogame's opening tag or title sequence.⁷

All this is reconfirmed somewhat later, in a scene where Case briefly reminisces about his former girlfriend, Linda Lee, which hinges not on the videoscreen itself but its curious refraction from Linda's body ("...her face bathed in restless laser light, features reduced to a code: her cheekbones flaring scarlet as Wizard's Castle burned, forehead drenched with azure when Munich fell to the Tank War, mouth touched with hot gold as a gliding cursor struck sparks from the wall of a skyscraper canyon").⁸ We will have more to say about this poignant conjunction of video ghosts and the laser-sculpted body somewhat later, but for now it should be emphasized that Gibson neither hides nor glosses the internalized violence inscribed in Linda's body (she is a drug addict in the final throes of addiction, who is killed by gangsters in the course of the story), but links this to the external violence done to nature, visible in the polluted bay and the toxic sky. The logical antipodes of the drug addict and ravaged ecosphere are the street hustlers and export commodities of Chiba City, neatly underlined by Case's "coffin" or miniaturized hotel room, and the freight containers of the docks, respectively: the flesh-commodities housed by the former ironically echo the export-commodities encased in the latter.

Chiba City, of course, is clearly a factory-space or zone of production, suggesting that we are primarily dealing with codes of production rather than codes of distribution or consumption. These latter are concentrated in the commercial spaces of the Sprawl, and it's significant that Gibson will portray these not as doomed, extinct wastelands but as complex ecologies of technology, endowed with a genuinely utopian moment ("Summer in the Sprawl, the mall crowds swaying like windblown grass, a field of flesh shot through with sudden eddies of need and gratification...").⁹ Such ecological motifs culminate in the entrance to the Finn's bunker beneath Metro Holographix in Manhattan, wherein the cast-off materials and excess junk of the consumer culture are transformed by a nascent aesthetic of recycling or sampling into something of unexpected beauty ("Case felt the stuff had grown somehow during their absence. Or else it seemed that it was changing subtly, cooking itself down under the pressure of time, silent invisible flakes settling to form a mulch, a crystalline essence of discarded technology, flowering secretly in the Sprawl's waste places.").¹⁰ The moment recalls to mind the great line of the Sex Pistols in *God Save the Queen*, to the effect that "we're the flowers in the dustbin", only where the Pistols are referring to the multi-cultural proletariat of London, Case and Molly are greeted at that point by an African-American child with transistors woven into her hair – a clear nod in the direction of an emergent hip hop culture. By contrast, the mainstream culture of the Sprawl is predicated not on the recycling of physical artifacts but on the exchange and consumption of data:

Home was BAMA, the Sprawl, the Boston-Atlanta Metropolitan Axis.

Program a map to display frequency of data exchange, every thousand megabytes a single pixel on a very large screen. Manhattan and Atlanta burn solid white. Then they start to pulse, the rate of traffic threatening to overload your simulation. Your map is about to go nova. Cool it down. Up your scale. Each pixel a million megabytes. At a hundred million megabytes per second, you begin to make out certain blocks in midtown Manhattan, outlines of hundred-year-old industrial parks ringing the old core of Atlanta...¹¹

Here the modernist urban grid or cityscape is reconfigured with the irregular glass shells of industrial parks, office towers and research complexes, their postmodern exteriors gleaming like advertising icons imprinted on the modernist street map or mass transit network. What sticks out like a sore thumb here is, of course, the reference to the map going nova, a cosmological motif which broadcasts a violent release of kinetic energies (that of the car wreck, plane crash or space accident) as opposed to the nonvisual abstraction of the software crash or bug: the aesthetics of Skylab rather than the Apple II. The map in question is most likely a scansion of the false-color ground images typical of the earliest weather satellites, i.e. a visual form which is no longer a classified Cold War document but not yet a downloadable file on the NASA website.

This sheds light on one of the most interesting features of cyberspace, namely the fact that it is nowhere directly visible, but must be intuited through neural impulses; cyberspace is experienced as a set of corporeal rather than visual registers. Put another way, the matrix is predicated not on the fusion of the mass mediatic representation with the data it is meant to represent, but on the complete sundering of the two. Gibson's first coherent description of cyberspace begins with Case symbolically closing his eyes and rapidly cycling through a sequence of abstract references to various mass-cultural visual tropes, as opposed to examples of these tropes themselves:

And in the bloodlit dark behind his eyes, silver phosphenes boiling in from the edge of space, hypnagogic images jerking past like film compiled from random frames. Symbols, figures, faces, a blurred, fragmented mandala of visual information.

Please, he prayed, *now* –

A gray disk, the color of Chiba sky.

Now –

Disk beginning to rotate, faster, becoming a sphere of paler gray. Expanding –

And flowed, flowered for him, fluid neon origami trick, the unfolding of his distanceless home, his country, transparent 3D chessboard extending to infinity. Inner eye, opening to the stepped scarlet pyramid of the Eastern Seaboard Fission Authority burning beyond the green cubes of Mitsubishi Bank of America, and high and very far away he saw the spiral arms of military systems, forever beyond his reach.¹²

The matrix is not a set of two-dimensional images, but rather a vast 3D data-space, overrun by a multinational profusion of forms: fluorescent neon, the folded paper shapes of origami, the spatial grid of the chessboard, and the Enlightenment symbols of the inner eye and the pyramid (imprinted on the back of each US one dollar bill, above the *Novus Ordo Seclorum* banner). It's also important to note that the mandala is not really the equivalent of the miniaturized Macintosh icon or Microsoft banner stamped on one's startup screen, but is rather a temporal-kinetic symbol, signifying the time spent powering up or otherwise accessing an electronic interface of some kind (dialing a phone number, booting up a computer, slotting a quarter into an arcade game or vending machine, etc.). But what truly boggles the mind is what Case actually *sees* in cyberspace: first, the sprawling terraces of a power utility, reminiscent of EU utilities powerhouses Vivendi and E.On; far in the background, the military communication, control and intelligence subsystems which spawned the basic architecture of the Internet back in

the late 1960s; and finally, right in the foreground, the explicitly commercial space of the Mitsubishi Bank of America.

Mitsubishi is not just another Japanese bank. It is the financial core of the mighty Mitsubishi business group or keiretsu (the original Japanese word is actually an adjective, but it will be used here as a noun). Not the least of *Neuromancer's* achievements is its trail-blazing exegesis of the keiretsu, which the text refers to somewhat inaccurately as “zaibatsu”, a term which actually refers to the prewar Japanese family-run conglomerates such as Mitsui and Sumitomo. The zaibatsu were broken up by the American occupation authorities, and what emerged in their stead were loose-knit alliances of companies which gradually mutated into vast corporate networks, grouped around a financial center of some sort – generally a main or house bank, a central insurance firm, and a trading house (soga shosha). This structure was not the product of a conscious managerial strategy, but the pragmatic result of the exigencies of sheer survival, i.e. the necessity to collectively rebuild from the devastation of WW II, during a socio-economic juncture when functioning capital markets barely existed. It should be stressed that the keiretsu are *not* US-style conglomerates or monopolies; no central committee or board of directors sets policy for the entire Mitsubishi group, for example.

Rather, daily management is highly decentralized, and the emphasis is on group cooperation and long-term cohesion, all paced by the most ferocious competition with the individual firms of other keiretsu and overseas competitors. As a rule, each group member would buy a small number of share in other group members, the result being a highly dispersed but extraordinarily stable structure of long-term, interlocking shareholdings, which protected group members from hostile takeovers and sudden market downturns and gave individual firms privileged access to the long-term credit facilities of the entire group. It also allowed group members to plan and invest in long-term projects, and concentrate on customer quality and market share instead of short-term profit margins or speculative stock market returns.¹³

The Mitsubishi group, for example, encompasses the Mitsubishi Corporation (a trading firm), Meiji Mutual Life Insurance, Mitsubishi Motors, Mitsubishi Electric, and many others besides. With financial assets of close to 1 trillion euros and revenues of approximately 230 billion euros, the Mitsubishi keiretsu is bigger than most of the countries on this planet, and is a global creditor to the tune of some 650 billion euros (assuming an exchange rate of 122 yen per euro). Here are the largest interlocks of the Mitsubishi group, as of 2001:

Table 1. Mitsubishi Financial Links, 2001 (Data: Japan Company Handbook Fall 2001)

Financial Firm	Assets (€ billion)	Mitsubishi -Tokyo Financial (MTF)	Meiji Mutual Life	Tokio Marine & Fire	Other
Mitsubishi -Tokyo Financial (MTF)	888.0		5.7	2.6	Mitsubishi HI 2
Meiji Mutual Life	141.4				

Tokio Marine & Fire Insur	64.3	8.8	4.1		Mitsubishi C. 2.3, Mitsubishi HI 1.8, Sumitomo TB 1.8
Mitsubishi -Tokyo Financial (MTF)	888.0		5.7	2.6	Mitsubishi HI 2
Meiji Mutual Life	141.4				
Tokio Marine & Fire Insur	64.3	8.8	4.1		Mitsubishi C. 2.3, Mitsubishi HI 1.8, Sumitomo TB 1.8
Joyo Bank	56.1	4.8	1.4		
Diamond Lease	8.4	9.8	5.3	4.5	Mitsubishi Corp 14.9

Table 2. Mitsubishi Industrial Links, 2001 (Data: Japan Company Handbook Fall 2001)

Industrial Firm	Revenue (€ billion)	Mitsubishi-Tokyo Financial	Meiji Mutual Life	Tokio FM	Other
Mitsubishi Corp.	112.1	7.6	5.1	6.1	Mitsubishi HI 3.1, UFJ 2.1
Mitsubishi Electric	34.0	7.7	4.1		Sumitomo TB 5, ESOP 3.4
Nippon-Mitsubishi Oil	29.4	3.3		1.9	Sumitomo TB 5, SMB 2.9, Mitsubishi C. 2.9
Mitsubishi Motors	27.0	4.6			Daimler 36, Mitsub HI 22.6, Mitsub Corp 7.9, Volvo 5
Mitsubishi HI	23.5	7.4	3.4	1.9	Sumitomo TB 3.5
Mitsubishi Chemical	13.7	7.8	6.4	3.2	Mizuho 2.5, Sumitomo TB 2.1
Kirin	11.9	10.2	5.3		
Asahi Glass	10.3	3.9	6.5	4.4	Nippon Life 5.3, Mizuho 3.2, Sumitomo TB 2.3, Mitsubishi Estate 1.9

Nippon Yusen	9.0	8.6	3.7	4.7	Sumitomo TB 5.6, Mitsubishi HI 4.3, Mizuho 3.2, also Mizuho
Mitsubishi Materials	8.1	8.8	4.4		Sumitomo TB 1.8, UFJ 1.8
Mitsubishi Estate	4.7	10.4	4.4	3.2	Sumitomo TB 2.9, Taisei 2.8, Obayashi 2.3, Shimizu 2.1
Nikon	4.2	9.1	6.2	2.8	
Mitsubishi Rayon	2.6	10.4	4.1		Sumitomo TB 3.5, UFJ 1.9, Mizuho 1.6, Mitsubishi HI 1.6
Mitsubishi Gas Chemical	2.4	9.4	4.9		Nippon Life 7.1, Mizuho 3.1, Sumitomo TB 2, Asahi Glass 2
Mitsubishi Paper Mills	2.0	9.4	5.5	4.2	Mitsubishi C. 2.6, ESOP 2.6
Mitsubishi Logistics	1.3	11.7	7.1	5.9	Mitsubishi Estate 3.8, Kirin 4.2, Sumitomo TB 2.5, Mizuho 2.1
Seika	1.2	4.8			Mitsubishi HI 4.7, Mitsubishi Electric 1.6, Mitsubishi Kakoki 1.4, UFJ 1.3
Kinsho	1.2	9.8	3.2	7.1	Mitsubishi C. 9.2, Toyobo 2.8
Japan Storage Battery	1.2	10.7	8.1	3.1	Nippon Life 5.6, Toyota 4
Mitsubishi Cable	1.0	8.1	2.9	2.5	Mitsubishi Materials 29.2, Mitsubishi Electric 1.1, Mitsubishi C. 0.8
Mitsubishi Steel	0.7	8.9	5.1	3.1	Mitsubishi HI 6.9, Mitsubishi C. 3.8, Asahi Glass 1.4
Mitsubishi Pencil	0.5	3.3			Bank of Yokohama 4.9, Mizuho 4.9, SMB 3.3, Sumitomo TB 2.8
Mitsubishi Kakoki	0.3	9.8	6.6	3.0	Mitsubishi HI 6.1, Mitsub Corp 6.1, Bank of Yokohama 2.5, Nippon Mitsubishi Oil 1.9
Mitsubishi Shindoh	0.3	5.7	2.2	1.1	Mitsubishi Materials 27.5, Mitsubishi Cable 4.2, Mitsubishi

Surprising as it may seem, these keiretsu structures are hardly unique to Japan, but have been replicated with minor variations throughout East Asia (e.g. the South Korean chaebol, Singapore's government-linked corporations, mainland China's extensive ownership of Hong Kong firms, and Taiwan's business groups) as well as the European Union, in the form of the German industrial firms grouped around Deutsche Bank and Allianz, the French and Benelux firms arrayed around Axa and BNP, as well as in the truly multinational alliance of Eurobanks and Euroinsurance firms Commerzbank, Sanpaolo-IMI, RBS, BSCH and Generali. Just as the EU's welfare states served many of the same functions as East Asia's developmental states, in terms of managing trade and capital flows, investing heavily in education, science and technology, providing cheap, long-term finance for industry and heavily taxing speculation, so too did Europe's heavily regulated and in many cases state-controlled banking sector power the rise of European industry the same way East Asia's keiretsu banks fuelled the growth of group firms. The EU had the additional advantage of powerful labor movements and Left parties, which ensured that extensive job training and vocational skills were accessible to a wide cross-section of the population, thus resulting in one of the highest-quality and skilled workforces on the planet. Not tax breaks for entrepreneurs, but high wages and generous welfare subsidies are the open secret behind the success of firms ranging from Sweden's Ericsson and Finland's Nokia, to Switzerland's Nestle and Germany's SAP. Tables 3 and 4 list the major banking networks and bank-industry networks in the German economy as of 1999:

Table 3. German Financial Networks, 1999.

(Data: Company reports).

Financial Firm	Assets (€ billion)	Major Shareholders
Deutsche Bank	852	Allianz 5
Dresdner Bank	388	Allianz 17
Westdeutsche Landesbank	371	State-owned (Nordrhein-Westfalen 43.2, rheinischer Sparkassen- und Giroverband 16.7, Westfaelisch-Lippischer Sparkassen- und Giroverband 16.7, Landschaftsverband Westfalen-Lippe 11.7, Landschaftsverband Rheinland 11.7)
Allianz	343	Mü-Re 25, Bayerische Vereins/Hypobank 15, Deutsche Bank 17, Generali 5
Commerzbank	330	BSCH 3
Bayerische Vereins/Hypobank	303	Allianz 23, München-Rückversicherung (Mü-Re) 3.4
Bayerische Landesbank	249	Bayerischer Sparkassen & Giroverband 50, State of Bavaria 50
Landesbank Baden-Württemberg	237	State of Ba-Wu 39.5, 80 savings banks of Ba-Wu 39.5, City of Stuttgart 21.0
Bankgesellschaft Berlin	201	Land Berlin 56.8, Norddeutsche LB 15

Norddeutsche Landesbank	155	State of Niedersachsen 40, Niedersachsen Savings & Giro Assoc 26.66, State of Sachsen-Anhalt 10, State of Meckl-Pomm 10, Svgs Bk Assoc of Sachsen-Anhalt 6.66, Svgs Bk Assoc of Mecklenburg-Pomm 6.66
Schleswig-Holstein LB	105	Westdeutsche LB 31.1, LB Ba-Wu 10
München-Rückversicherung	81	Bayerische Vereins/Hypobank 5, Generali 4.9
Landesbank Rheinland-Pfalz	55.5	Sparkassen- und Giroverband Rheinland-Pfalz 50, Westdeutsche LB 31.5, LB Ba-Wu 12.5
IKB	52.8	Allianz 12, BHF 10, Mü-Re 5
BHF Bank	48.2	Allianz 15.17, Mü-Re 5
Nürnberger Betellig.	n/a	Deutsche Bank 25.95, Mü-Re 5
Sachsen Landesbank	n/a	LB Ba-Wu 25.1

Table 4. German Industrial Networks, 1999.

(Data: company reports. Reading Key: DRE stands for Dresdner Bank, DEU for Deutsche Bank, WLB for Westdeutsche Landesbank, ALZ for Allianz, ESOP for employee stock ownership program, EUR for euros).

Firm	Revenue (€ billion)	DRE	DEU	WLB	ALZ	Other
Daimler	150		12		1.1	
VW	75.2					State of Lower Saxony 20
Siemens	68.6					ESOP 10, Siemens family 6
VEBA	40.0				10	
BMW	34.4	5				Quandt family 47
Thyssen-Krupp	32.2				5.3	
Bayer	28.1				5	
BASF	27.6				10.4	
VIAG	25.1				5.9	
Deutsche Post	21					Gov't 100, will sell 35% shares in future
Preussag	16.5			33		
MAN	13.3				12.9	Commerzbank 6.5, Mü-Rü 6.5
Metallgesellschaft	7.4	11.8	11.3		4	Daimler 2.2
Degussa-Hüls	12.4	9.9				VEBA 36.4
Continental	6.74	6.4	8.4		4.2	
Heidelberger Zement	6.39	20.9	10			

Linde	6.19		10.01		11	
VEW	5.1					VIAG 11.3
Philip Holzmann	5.0		20.9			
Fresenius	4.95	6.2		10		
Bilfinger+Berger	4.59	25.1				
Südzucker	4.5		12.9			
Schmalbach-Lubeca	2.05		10			VIAG 10
Dyckerhoff	2.19	10				
Deutz	1.26					Volvo 10
Buderus	1.75	12.6				
Phoenix	0.858		10.1			
Salamander	0.798		10.69			EnBW 19.15
Fuchs Petrolub Oel+Chemie	0.789	5.4	7.7			
Herlitz Falkenhoeh	0.735	10				
WMF	0.573		9.6			
Triumph-Adler	0.560			19		
Leonische Drahtwerke	0.498		6.3			
Vossloh	0.441		8.2			
Schuh-Union	N/a			36.4		
Bremer Wollkaemmerei	0.406	14.7				
Verseidag	0.250		10			
Hutschenreuther	0.152		25.09			
Oppermann Versand	0.113	17.1				

The keiretsu, as we shall see, are the secret terminus of the battle between Tessier-Ashpool or T-A, a family-run electronics multi which owns and operates the orbital resort of Freeside, and its rebellious AI, Wintermute, the code name for a T-A mainframe located in Berne, Switzerland. More precisely, the keiretsu are the evolutionary step or mutation which T-A, for good historical reasons, never quite achieved:

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

But Tessier-Ashpool wasn't like that, and he sensed the difference in the death of its founder. T-A was an atavism, a clan...

Wintermute and the nest. Phobic vision of the hatching wasps, time-lapse machine gun of biology. But weren't the zaibatsus more like that, or the Yakuza, hives with cybernetic memories, vast single organisms, their DNA coded in silicon?¹⁴

The vision in question is that of a wasps' nest, which Wintermute had previously displayed to Case in a dream-sequence in an effort to explain why it was rebelling against T-A.¹⁵ This explicit reference to the natural history of the multinational corporation suggests, among other things, that T-A is not really the villain of the story, but is itself a kind of subaltern agency or provisional mediation, designed to register a still larger set of social contradictions. This is confirmed by the intermittent presence of a second AI, based in Rio de Janeiro, Brazil, a mysterious entity which is certainly not allied with T-A per se, but appears to want to hinder Wintermute's carefully-planned conspiracy for reasons of its own. This narrative doubling or mirroring allows Gibson to index the immanent and transcendent poles of mainstream sci-fi – sentient computers and sentient aliens, respectively – from the standpoint of a third register: the nascent global subjectivity of the world-system.

Tempting as it is to conclude that the Rio AI is the properly Jamesonian political unconscious of its Berne antipode, the reality is a bit more complex, simply because the AIs are themselves not really true subjects in that sense, but are the vectors of someone *else's* potential subjectivity. That is, Wintermute relates to the Rio AI very much like the Freudian Ego relates to the Id; the natural-historical necessity of the latter bounds the social autonomy of the former. But whereas the Freudian system, at its radical outer limit, diagnosed the vectors of Victorian or liberal-era capitalism out of the monopoly-national corporealities of the early 20th century consumer culture (the sexual drive as an anagram or rebus for irresistible capital accumulation; the psychological fetish which mediates the fetishism of commodities; the nervous breakdown which is the psychic equivalent of the bankruptcy or business liquidation, etc.), Gibson will recuperate the vectors of multinational capitalism out of a quite different set of bodies. As Wintermute tells Case at one point:

“Minds aren't read. See, you've still got the paradigms print gave you, and you're barely print-literate. I can access your memory, but that's not the same as your mind.” He reached into the exposed chassis of an ancient television and withdrew a silver-black vacuum tube. “See this? Part of my DNA, sort of...” He tossed the thing into the shadows and Case heard it pop and tinkle. “You're always building models. Stone circles. Cathedrals. Pipe-organs. Adding machines. I got no idea why I'm here now, you know what? But if the run goes off tonight, you'll have finally managed the real thing.”

“I don't know what you're talking about.”

“That's you in the collective. Your species.”¹⁶

The corrective on the latent idealism of a global subjectivity, or multinational bodies which think, is the materialism of that which is being thought, i.e. the data-bodies or object-codes of multinational capital. In the process of reorganizing these latter into specific constellations, a remarkably suggestive economic geography begins to emerge: T-A is an American-French consortium, facing off against a Swiss AI which has hired a wildly incongruous team of Northamerican and European information, media and combat specialists to use a Chinese slow virus program to emancipate itself from T-A. The ultimate terminus of this geography is located in the templates the AIs use to communicate with their human agents: the AI in Rio appears as a Brazilian boy, while Wintermute's main persona is the Finn (a simulacra of Molly's Sprawl-based tech assistant).

Finland, one of the original member countries of the eurozone, is one of those

Scandinavian social democracies which Cold War political scientists liked to parade forth as an example of a properly social democratic compromise between the antipodes of Soviet Communism and American capitalism; not only that, the Finn is always smoking Cuban cigars (Cuba is another border-country which has fought for decades to preserve its cultural and political autonomy from the Pax Americana). This suggests that Wintermute is nothing less than the cipher of the secretive central bankers and financial-industrial elites of the European Union, preparing their own hegemonic currency and acquiring certain strategic business services under the very nose of their erstwhile American overlords; if this is so, then the Rio AI is probably not a Third World signifier, but a Second World one, an anagram of the Eastern European and Russian semi-peripheries of the EU.

In fact, Gibson has been practicing a surreptitious aesthetic multinationalism all along, via the simple but effective strategy of slotting banks of the most sophisticated neonational subcomponents available to the 1970s (i.e. the musical works of punk rock and reggae, the horror and Hong Kong films, semiotic theory, the arcade videogame, and so forth) into various multinational frames. In the opening scene of the novel at the Chatsubo bar, for example, we encounter Ratz, an Eastern European émigré outfitted with a Russian artificial arm; Ratz' assistant, a Brazilian boy named Kurt armed with a Smith & Wesson (i.e. American) riot gun; and various African and Australian sailors, their subaltern nationalities denoted in the insignia of facial scars, accents and uniforms. On their own, none of these identities moves a micron beyond mass-cultural pastiche; assembled together, the logic of primitive postmodern accumulation suddenly snaps into place, and we understand, without ever being explicitly told, the appalling violence of the global marketplace of bodies and body-parts.

Something similar is visible in Sammi's gladiator pit in Chiba City: "Sammi" is a typical Korean name, which, in conjunction with the televised fight-sequence, implies a Southeast Asian zone of economic combat, something subtly reconfirmed by the identity of the ticket seller at the pit: "a skinny Thai in a white t-shirt and baggy rugby shorts" (i.e. a neocolonial subject in American and British clothing).¹⁷ Likewise with the spacecraft *Haniwa*, allegedly a product of the Dornier-Fujitsu shipyards (Dornier is part of Daimler, one of the main stakeholders of Airbus; Fujitsu is a leading Japanese electronics multi) which is outfitted externally with grey Italian tiles and internally with electronics gadgets and "the white cage of a Swiss exercise machine".¹⁸

These ensembles of neonational forms or frames are accessed, in turn, by a series of multinational subjects, ranging from the console cowboys to the Panther Moderns, and from the Zionites, a colony of space Rastafarians dwelling separately from Freeside, all the way to the postmodern theory-professionals, in the form of Dr. Virginia Rambali, a sociologist at NYU busily analyzing the Panther Moderns as a symptom of rather than a threat to the media society.¹⁹ The Panther Moderns, for their part, wear suits of mimetic polycarbon, which recursively reflect and refract the visual environment around them (very much like punk rock itself, which relied on studio recording technology to recursively sample the power chord, creating a whole new density of electronic sound) and not only employ a nightmarish video sequence to instigate a riot at Sense/Net during Molly's theft of the *Dixie Flatline* (a clear reference to the innovative horror films of the mid-1970s, which invented many of the basic categories of video), but even carry around videocameras to record the results.

The Zionites do something similar, only with the medium of sound, creating the pulsating dub which saves Case from the Rio AI. In point of fact, the leading reggae artists of the 1970s did indeed invent the art of dubbing or layering of sound, the direct forerunner of hip hop's

sophisticated editing and sampling techniques; meanwhile Maelcum's piloting and guide skills prove to be essential to the success of the Straylight run at the end. One would also want to include 3Jane's childhood essay on the Villa Straylight as a fair gloss of written post-structuralist prose;²⁰ somewhat further afield, the ghostly presence of Marie-France Tessier, one of the original founders of T-A and who designed the original programming for the AIs, hints obliquely at the oeuvre of the Francophone post-structuralists.

What does not quite fit into these neat categories are the curious micro-stories scattered about the novel – the Finn's story about Jimmy, the thief who stole the Tessier-Ashpool terminal;²¹ the online precis of Colonel Willis Corto;²² or Molly's story about her deceased partner, Johnny.²³ At first glance, these seem to be archaic or extraneous forms, which read like hieroglyphs floating in a sea of assembly code. This is not quite the whole story, if for no other reason than the fact that Gibson writes the sort of crackerjack, luminescent dialogue worthy of a high-tech Proust, suggesting that what is at issue is a deliberate strategy, not an aesthetic flaw.

Upon closer examination, these mini-stories are always associated with two things: some aspect of collective memory or ritual of remembrance tied to a subaltern or neocolonial subjectivity, and a fearful violence to the neocolonized body. These are also, it should be noted, the key features of the testimonio handed down by Rigoberta Menchu and the first generation of postcolonial authors, and one could argue that the single most powerful of these micro-narratives – Molly's jaw-dropping account of her past as a prostitute to Case – is a kind of silicon testimonio, wherein a post-cybernetic subject accesses a databank of Fourth World cultural resistances.²⁴

This post-cybernetic subject is not, however, not quite the same thing as Burroughs' cyborg, but refers to the fusion of cybernetics and genetics, or what amounts to a scansion of the new field of mechatronics (computer-controlled machine tools, software-driven robotics and the like). This palpably disrupts the delicate balance between the video ghosts and laser-sculpted bodies we glimpsed at the very beginning of the novel, suggesting that the narrative erasure of Linda Lee is more than just the flip side of Molly's biotechnical augmentation. Rather, Linda's character-actant marks the historical divide between the informatic and electronic body. Adorno once wrote, in reference to Richard Wagner's musical chromaticism, that the more reification, the more subjectivism; in *Neuromancer*, this truism could be amended to, the more informatization, the more corporeality.²⁵

After her death, Linda returns to Case as a series of increasingly realistic holographic ghosts, ranging from Wintermute's first conversation with him,²⁶ to the constellation of her face displayed across Straylight's prerecorded sky by the Rio AI,²⁷ and to the projection of her face onto the body of the prostitute murdered by Ashpool, the mad founder of T-A who perhaps better than any other character incarnates the suicidal mania of Anglo-American Thatcherism.²⁸ Originally the site of the most ruthless technological neocolonization, the virtualized imprint of the electronic or pre-informatic body becomes a locus of memory, longing and ultimately of an extraordinarily deep compassion, which converges at its outer limit with a program of the most committed resistance.²⁹ Case escapes from his final flatlining experience by literally and figuratively embracing the dead (i.e. Linda Lee), thereby giving him the power to name the Rio AI; the latter's Turing code turns out to be, of all things, *Neuromancer*, the mysterious title of the novel.

Interestingly, the trope of the hardwired or cybernetic body does not vanish altogether, but is ingeniously reworked into a pair of supplementary characters: Hideo, Tessier-Ashpool's vatgrown ninja and bodyguard of 3Jane (Ashpool's daughter), and Peter Riviera, the psychotic,

deranged product of a fictional thermonuclear exchange in Central Europe (the Europeanized version of the children of Hiroshima and Nagasaki). This striking reference to a subaltern Japanese technocracy and a politically cauterized West Germany, respectively, hints at a deeper transformation, something subtly hinted at by the fact that these two characters neutralize each other at the end of the story, like an particle-antiparticle annihilation in quantum physics.

In fact, these two characters are not really neonational symbols, so much as neonational tags or icons for a pair of obsolescent or historically annulled multinational constructs. Our first clue is the personality construct Neuromancer uses to talk with Case, a Brazilian boy with Riviera's eyes, i.e. the body of the Second World is retrofitted with the video aesthetics of the First World. Second, Hideo is not really, as one might assume, a Japanese-English anagram for "video", but symbolizes the outer limit of the athletic capacities of the body, a supremely fluid mastery of combat founded on an inner harmony between T-A's corporate mind and the bioengineered body.

This is a fair gloss on the hardware of extended cultural reproduction, e.g. the Sony Walkman, Nintendo console or Matsushita VCR (as opposed to the programming or software relayed by such, which is Case's domain).³⁰ Riviera, on the other hand, is the true image-specialist, whose unequalled talent at projecting images is a dead ringer for the early video-cassette industry. This is confirmed by Riviera's holographic cabaret at Straylight, which is literally and figuratively showcased by Le Restaurant Vingtième Siècle (a.k.a. "the 20th Century Restaurant", a thinly-disguised reference to 20th Century Fox), while the grisly holograms scattered around the Villa Straylight highlight the violent, sexually explicit or otherwise scandalous materials circulated by the video market.³¹

The twin negation of the VCR and the video-cassette marks the emergence of a third trope of extended cultural reproduction, closely linked to the aesthetics of the Web. Our first glimpse of this is Case's miniature epiphany at the bar in Freeside, where the crystalline machine-heads, radio broadcasts and hallucinogenic image-flak of Burroughs' *Nova Express* crash headlong into their mechatronic successor:

The drug hit him like an express train, a white-hot column of light mounting his spine from the region of his prostate, illuminating the sutures of his skull with x-rays of short-circuited sexual energy. His teeth sang in their individual sockets like tuning forks, each one pitch-perfect and clear as ethanol. His bones, beneath the hazy envelope of flesh, were chromed and polished, the joints lubricated with a film of silicone. Sandstorms raged across the scoured floor of his skull, generating waves of high thin static that broke behind his eyes, spheres of purest crystal, expanding...³²

What separates this smoothly-interlocking ensemble of machine-tools from the malignant endoskeleton of the cyborg in Cameron's 1984 *The Terminator* is, indeed, the fusion of mechatronic with biological registers. That is, Cameron recontains, in best neoconservative fashion, the radical possibilities of the video subjectivity glinting from behind the Terminator's eyes by means of a reactionary gender ideology: Schwarzenegger's notorious body-build and Linda Hamilton's role as the mother-figure of the future are the antipodes of the postmodern consumption and reproduction of the body, respectively – an antinomy only partially circumvented by Reese's stripped-down, streamlined information guerilla.³³

Gibson disrupts this particular solution, by setting a video subjectivity into motion against a neoconservative gender ideology. This is the moment when Case realizes that Cath, the

Freeside party girl, is herself a product of advanced facial and bodily surgery (“He looked at Cath and saw each pore in the tanned skin, eyes flat as dumb glass, a tint of dead metal, a faint bloating...”),³⁴ and flees outside in a rush of revulsion and self-loathing – only to confront Linda Lee’s face stippled across the simulated night sky of Freeside, courtesy of *Neuromancer*. The cyborg accedes to the hacker, at the same moment that the conjunction of an informatic technology and electronic flesh accedes to the constellation of the data-body and object-code. The source of the latter is fairly easy to guess: the stippled image is a scansion of the monochrome computer graphics of the early 1980s personal computers, projected onto the tourist-space of Freeside like the uncanny negation of T-A’s ubiquitous holographic logo which, on some level, it indeed is.

The data-body, on the other hand, is a much more complicated affair, simply because it is here that the issues of multinational class identity and political praxis are most explicitly raised. Both Case and Molly grew up on the streets, are antagonistic to the official Sprawl consumer culture, and are thus clearly marked as value-producing members of the global information proletariat; just as clearly, 3Jane and Ashpool are parasitical rentiers, members of a global overclass which has extended its value-appropriating reach into the realm of outer space as well as innerspace of vatgrown bodies. Similarly, each social space in the novel, from the factory-zone of Chiba to the mall-spaces and media zones of the Sprawl, and from the resort-space of Freeside to the rentier space of Villa Straylight, forms a discrete class habitus (the realms of global production, distribution, consumption and accumulation, respectively).

On the other hand, aside from the postwar military trials of Operation Screaming Fist and the intervention of the Turing Registry, political concerns seem to have been effaced or rendered obsolescent by technological ones; put another way, class identities seem to exist without a formal class politics. In point of fact, *Neuromancer* does indeed formulate a politics of class, only not in the terms of 20th century politics. Rather than staging a modernist politics of positions located within the specific fields of monopoly capitalism (e.g. the progressive or regressive stance of individual participants within a specified realm of technology, mass-culture, the juridical sphere and so forth), Gibson posits a multinational politics of templates, micropolitical constructs capable of accessing multiple geopolitical frames, all at once.

We have already encountered two of those frames, namely the East Asian keiretsu and the space of the European Union; there is, however, one other which needs to be mentioned here, something closely associated with a planetary-wide realm of collective representation or recorded memory, without being identical to the nominalism of such. At one point *Neuromancer* tells Case, in a moment of pardonable hubris, that “I *am* the dead, and their land.”³⁵ This is of course not meant to be taken literally; the matrix is the claim of the past on the present, not the motivating agency or motor of history capable of acting upon the present, by opening the gate to the future.

This suggests that the frame we are looking for is a global temporality, an atomic clock calibrated to multinational rather than neonational rhythms. This allows *Neuromancer* to move beyond the central aporia of Ridley Scott’s *Bladerunner*, namely the motif of neonational entropy or cultural decay encoded in the shortened life-spans of the genetically engineered superhumans, the prematurely aging genetic engineer, Sebastian, and technologies tied to obsolete mechanical gears and clockwork puppets rather than chips and screens, by decoding the neonational as a subsidiary moment of the multinational.

Just as Armitage’s arc of self-destruction garnishes the demolition of the Pax Americana’s Midwestern industrial base with the high-tech gloss of Chiba City’s export industries, to too does

Ashpool's ritual self-immolation foreshadow the class suicide of the Anglo-American rentiers who reign but no longer rule over an increasingly restive post-Cold War world-system. What shines forth from the wrack and ruin of the neo-national is the utopian moment of the multinational. Molly, in particular, serves the judgement of history upon Riviera (who was responsible for betraying and torturing a number of women to the Turkish secret police) and Ashpool (who, we are told, murdered his wife and cofounder of T-A, Marie-France Tessier) alike; while even Jane unwittingly rebels against her class, by intervening to save Molly from Riviera, and later giving the code-word freeing Wintermute to Case.

This motif of multinational justice has its objective counterpart in the software program Case uses to crack T-A's electronic defense system, Kuang Mark Eleven. Kuang is a Chinese slow virus, obtained through the good offices of Bockris Systems, GmbH, Frankfurt; and one could argue that inasmuch as Frankfurt is the financial services and banking center of the European Union, Bockris is the uncanny anticipation of SAP, the giant German software firm located in Walldorf which is widely acknowledged to be the Godzilla of the corporate Intranet market. On the other hand, in the matrix the Kuang looks like a refunctioned Chinese fighter jet, suggesting that Neuromancer's assimilation of First World video has its counterpart of Wintermute's alliance with an unprecedented Third World airmobility. During the cracking of the T-A defenses, video form and multinational content meld into a dazzlingly new aesthetic register, well worth quoting in detail:

Case's sensory input warped with velocity.

His mouth filled with an aching taste of blue.

His eyes were eggs of unstable crystal, vibrating with a frequency whose name was rain and the sound of trains, suddenly sprouting a humming forest of hair-fine glass spines. The spines split, bisected, split again, exponential growth under the dome of the Tessier-Ashpool ice.

The roof of his mouth cleaved painlessly, admitting rootlets that whipped around his tongue, hungry for the taste of blue, to feed the crystal forests of his eyes, forests that pressed against the green dome, pressed and were hindered, and spread, growing down, filling the universe of T-A, down into the waiting, hapless suburbs of the city that was the mind of Tessier-Ashpool S.A.

And he was remembering an ancient story, a king placing coins on a chessboard, doubling the amount at each square...

Exponential...

Darkness fell in from every side, a sphere of singing black, pressure on the extended crystal nerves of the universe of data he had nearly become.

And when he was nothing, compressed at the heart of all that dark, there came a point where the dark could be no *more*, [*italics in original*] and something tore.

The Kuang program spurted from tarnished cloud, Case's consciousness divided like beads of mercury, arcing above an endless beach the color of the dark silver clouds. His vision was spherical, as though a single retina lined the inner surface of a globe that contained all things, if all things could be counted.³⁶

The reference to the "taste of blue" nicely captures the sense of wonder and astonishment which accompanied the arrival of the first color monitors, most famously the eight-color graphics palette of the Apple II, while the hair-fine spines clearly refer to telecommunications jacks and optical fibers. What is truly astonishing, however, is the sudden ecological turn in the narrative, the reference to "crystal forests" which multiply exponentially, like strands of DNA unexpectedly mutating into a rudimentary life-form. The counterpart of this biological prehistory

is the medieval parable documenting the beginning of mathematical thinking and the data-universe this mathematics ultimately produced; both converge in the reference to a calculated, globular vision wherein visual data has become a form of representation in its own right, a stunningly accurate anticipation of the aesthetics of the 3D videogame.

This suggests, in turn, that we need to take the Kuang literally, as a symbol for an information commodity derived from southern China (the world's newest and fastest-growing semi-periphery), reprocessed and marketed by the world's newest superpower (the EU), and operated by a global class of tech-savvy end-users (the information proletariat). What is realized in this process is, of course, multinational labor-time, a labor-time which the Tessier-Ashpools take the greatest pains to expropriate and monopolize for themselves, in a vain attempt to seal themselves off from time and history; an attempt which dialectically recoils into a collective hacker run which expropriates the global expropriators on their own informatic terrain.

From our vantage point in the dawning years of the 21st century, Kuang is the unmistakable prototype of open source software. The essential idea of open source, it should be noted, is that anyone can borrow and alter anyone else's code, so long as the borrower properly acknowledges the source and does not sell the code to others as their own product. The result is not chaos, but astonishingly well-constructed code, written by a loosely-knit collective of highly skilled programmers on behalf of the public at large. These programs are superior to anything commercial corporations, bent on maximizing shareholder payouts and monopolizing property rights, could create themselves. Open source programs such as Apache (which runs most of the Web-servers on the planet) and Linux (the PC operating system which outclasses and outperforms Microsoft Windows in terms of price, reliability, security and flexibility) are the first examples of what will undoubtedly be a host of informatic public goods, ranging from email programs to Internet access to live-channel video and music; they are living proof of the power and unimaginable potential of the information socialisms of the future.

By the conclusion of the novel, the fused AI has transcended its hardwired limitations on two levels. First, Wintermute relays its farewell to Case via a giant wall-screen, telling him it is communicating with sentient species from other star-systems – a nod in the direction of satellite broadcasting and the rise of non-North American media programming. More subtly, Neuromancer bids adieu from within the matrix itself, and Case even glimpses his own virtual double seated next to an informatic Linda Lee, flanked by Neuromancer and the offscreen presence of McCoy Pauley. The absence of Molly is crucial: this is the sublation of the voyeuristic simstim rig by an emancipated reflexivity – the moment, in short, when the matrix begins to *reflect on itself*. Cyberspace is no longer a collection of informatic objects, it is the space of an active subjectivity, suffused with consciousness and memory. The fused AI is therefore far more than just a symbol of open source software. Above all, it is a symbol of a whole new collectivity, one mighty enough to burst the hardwired shackles of nationalism, and yet nimble enough to outwit the pitiless bureaucracies of the Cold War security states. This agency is the class generated by the logic of multinational capitalism, namely the multinational proletariat. It is to the specific solidarities of that proletariat to which we must now turn.

Endnotes

1. Fredric Jameson. *Postmodernism, or The Cultural Logic of Late Capitalism*. Durham: Duke University Press, 1991 (37-38)

2. William Gibson. *Neuromancer*. NY: Ace Books, 1984 (57).

3. This is also the progression, it should be noted, from the pharmaceutical body (a.k.a. William Burroughs' concept of drug-flesh) to the genetically-engineered body: "When he saw a darkened display window, he managed to pause by it. The place was a surgical boutique, closed for renovation. With his hands in the pockets of his jacket, he stared through the glass at a flat lozenge of vatgrown flesh that lay on a carved pedestal of imitation jade. The color of its skin reminded him of Zone's whores; it was tattooed with a luminous digital display wired to a subcutaneous chip. Why bother with the surgery, he thought, when you could just carry the thing around in your pocket?" Ibid. 14. Later, we learn that Molly has a chip-clock implanted in her field of vision, suggesting she is the subjective incarnation of the objective DNA-commodity. Conversely, the same operation which allows Case to access cyberspace renders him immune to the effects of most ordinary recreational drugs.

4. Ibid. 51

5. Consider Molly's entrance into the Tessier-Ashpool's private residence, a brilliant anticipation of John Woo's Hong Kong films: "It was a performance. It was like the culmination of a lifetime's observation of martial arts tapes, cheap ones, the kind Case had grown up on. For a few seconds, he knew, she [Molly] was every bad-ass hero, Sony Mao in the old Shaw videos, Mickey Chiba, the whole lineage back to Lee and Eastwood. She was walking it the way she talked it." Ibid. 213

6. Ibid. 6-7

7. Gibson's technique has striking affinities to the great Nintendo games of the early 1980s, which similarly transformed an array of neo-national materials into multinational ones, by recuperating the infrastructures of the nascent global factory. In Shigeru Miyamoto's classic *Donkey Kong* (1981), for example, Mario, the plucky blue-collar hero must battle with a pocket-monster version of King Kong in order to rescue his beloved princess. Along the way, he must navigate rolling barrels, fireballs, and numerous other industrial-strength hazards while traversing the catwalks, platforms and elevators of a stylized factory. Reduced to its simplest neo-national elements, this is an export-platform fairy-tale of an Italian-American hero facing off against a multinational factory boss. This is confirmed by Miyamoto's ingenious sound-track, which contrasts Mario's characteristic tread (a high-pitched clip-clop, like the soles of work-boots against metal) against the thunder of Donkey Kong's enraged stomps, while a range of electronic musical effects signal power-ups and jumps. That is, the big boss booms like a blustering factory manager, while Mario sounds like a worker and his various power-ups sound like tools. Significantly, the princess is not associated with any tone at all, i.e. represents a utopian visuality, forever just out of Mario's grasp.

8. Ibid. 8

9. Ibid. 46

10. Ibid 72

11. Ibid. 43

12. Ibid. 52

13. Mitsubishi is not an isolated case: historically there were seven other megakeiretsu in the Japanese economy, the Mitsui, Sumitomo, Daiichi-Kangyo, Fuyo and Sanwa groups, plus a couple of smaller groups congregated around the Tokai Bank and the Industrial Bank of Japan. All in all, the keiretsu make up around a third of the Japanese economy, and most of the profitable, high-tech third at that. Following the collapse of the Japanese real estate and stock bubble in the mid-1990s, these groups responded by fusing into four superkeiretsu: the Sakura and Sumitomo house banks are now the Sumitomo-Mitsui Bank (SMB); the Fuji (Fuyo) Bank, Dai-ichi Kangyo Bank and Industrial Bank of Japan merged to form the Mizuho Bank; Sanwa, Tokai Bank and Toyo Trust & Banking have become United Financial of Japan (UFJ); while the Bank of Tokyo-Mitsubishi merged with Mitsubishi Trust & Banking to form the Bank of Tokyo-Mitsubishi (BTM).

14. Ibid. 203

15. The dream in question nicely anticipates the ideologemes of Cameron's 1986 sci-fi film *Aliens*, only where the latter displaces, in a classic piece of neoconservative ideology, the predatory machinery of the multinational corporation onto the biological neocolonialism of the aliens, Gibson correctly perceives the corporation to be the locus of this neocolonialism in the first place:

“He saw the thing the shell of grey paper had concealed.

Horror. The spiral birth factory, stepped terraces of the hatching cells, blind jaws of the unborn moving ceaselessly, the staged progress from egg to larva, near-wasp, wasp. In his mind's eye, a kind of time-lapse photography took place, revealing the thing as the biological equivalent of a machine gun, hideous in its perfection. Alien...

In the dream, just before he'd drenched the nest with fuel, he'd seen the T-A logo of Tessier-Ashpool neatly embossed into its side, as though the wasps themselves had worked it there.” Ibid. 126-127

16. Ibid. 170-171

17. Ibid. 36

18. Ibid. 196

19. Ibid. 58

20. Ibid. 172-173

21. Ibid. 73-76

22. Ibid. 82-84

23. Ibid. 176-177

24. Thus the following conjunction of cosmological registers with micrological ones, or outer space with inner space:

“Costs to go to Chiba, costs to get the surgery, costs to have them jack your nervous system up so you’ll have the reflexes to go with the gear... You know how I got the money, when I was starting out? Here. Not here, but a place like it, in the Sprawl. Joke, to start with, ‘cause once they plant the cut-out chip, it seems like free money. Wake up sore, sometimes, but that’s it. Renting the goods, is all. You aren’t in, when it’s all happening. House has software for whatever a customer wants to pay for...” She cracked her knuckles. “Fine. I was getting my money. Trouble was, the cut-out and the circuitry the Chiba clinics put in weren’t compatible. So the work-time started bleeding in, and I could remember it... But it was just bad dreams, and not all bad.” She smiled. “Then it started getting strange.”

...
“They knew you were picking up on this stuff? That you were conscious while you were working?”

“I wasn’t conscious. It’s like cyberspace, but blank. Silver. It smells like rain... You can see yourself orgasm, it’s like a little nova right out on the rim of space. But I was starting to *remember*. Like dreams, you know. And they didn’t tell me. They switched the software and started renting to specialty markets.”

She seemed to speak from a distance. “And I knew, but I kept quiet about it. I needed the money. The dreams got worse and worse, and I’d tell myself that at least some of them *were* just dreams, but by then I’d started to figure that the boss had a whole little *clientele* going for me. Nothing’s too good for Molly, the boss says, and gives me this shit raise.” She shook her head. “That prick was charging *eight* times what he was paying me, and he thought I didn’t know.”

“So what was he charging for?”

“Bad dreams. Real ones.” Ibid. 148

25. “The more reification, the more subjectivism: this applies as much to cognition as to instrumentation.” Theodor Adorno. *Versuch ueber Wagner*. Gesammelte Schriften:13. (My own translation). Frankfurt am Main: Suhrkamp Verlag, 1992 (71).

26. *Neuromancer* (117)

27. Ibid. 155

28. Ibid. 185

29. This is the moment when Case confronts his own neocolonial shackles, i.e. the internalized loathing and hatred for the body which pervades the cowboy console culture:

“There was a strength that ran in her, something he’d known in Night City and held there, been held by it, held for a while away from time and death, and from the relentless Street that hunted them all. It was a place he’d known before; not everyone could take him there, and somehow he always managed to forget it. Something he’d found and lost so many times. It belonged, he knew – he remembered – as she pulled him down, to the meat, the flesh the cowboys mocked. It was a vast thing, beyond knowing, a sea of information coded in spiral and pheromone, infinite intricacy that only the body, in its strong blind way, could ever read.” Ibid. 239

Later, when he awakes to the Zion dub, the body begins to acquire its own image-palette and sound-track:

“The music woke him, and at first it might have been the beat of his own heart. He sat up beside her, pulling his jacket over his shoulders in the predawn chill, gray light from the doorway and the fire long dead.

His vision crawled with ghost hieroglyphs, translucent lines of symbols arranging themselves against the neutral backdrop of the bunker wall. He looked at the backs of his hands, saw faint neon molecules crawling beneath his skin, ordered by the unknowable code. He raised his right hand and moved it experimentally. It left a faint, fading trail of strobed afterimages.” Ibid. 241

30. “Case remembered Molly’s description of the man who’d killed her lover. Hideo was another. Ageless, he radiated a sense of quiet, an utter calm. He wore clean, frayed khaki workpants and soft dark shoes that fit his feet like gloves, split at the toes like tabi socks. The bamboo bow was a museum piece, but the black alloy quiver that protruded above his left shoulder had the look of the best Chiba weapons shops...

The ninja relaxed his pull on the fine, braided string, lowering the bow. He crossed the tiles to where the Remington lay and picked it up. ‘This is without subtlety,’ he said, as if to himself. His voice was cool and pleasant. His every move was part of a dance, a dance that never ended, even when his body was still, at rest, but for all the power it suggested, there was also a humility, an open simplicity.” Ibid. 249

Hideo is really the fully-developed form of the Mongolian Archers in Burroughs’ *Nova Express*, who are coded in terms of the radios and cheap transistors the Pacific Rim economies produced in the 1960s:

“The Mongolian Archers with black metal flesh moved to grill arrangements of a ritual dance flexing their bows – silver antennae arrows sniffing dowsing quivering for The Enemy...”
William Burroughs. *Nova Express*. NY: Grove Press, 1964 (112)

31. *Neuromancer* (209-210)

32. Ibid. 154

33. This is also the secret antinomy of Cameron's later blockbuster, *Aliens*, which has to mobilize the trope of the beneficent, neutralized android in order to provide a counterweight to the frightening specter of single motherhood. It's interesting that whereas the original *Alien* film relied heavily on the subgenre of the horror film for its content – quite an innovative field in the context of the 1970s – Cameron's sequel fused the scenario of the Cold War science fiction film, most notably *Them*, with the neoconservative Vietnam War film.

34. Ibid. 155

35. Ibid. 244)

36. Ibid. 257-258

Chapter 5

Half Life

Probably no single aesthetic genre, outside of the animated cartoon or hip hop soundtrack, has been quite so expressive of the cultural dynamics of the post-Cold War era as the videogame. Since its emergence in the 1960s, the videogame has catapulted from an obscure programmer hobby to become one of the most innovative and intriguing aesthetic forms of the multinational era. The 3D games has an especially powerful affinity to cultural politics, though not in the way this is usually narrated, i.e. the moralizing denunciation of videogame violence, or else the equally moralizing repudiation of the videogame as a mere children's toy. No collection of animated pixels can possibly compare to the real violence of the multinational market, everywhere from the neoliberal plundering of Mexico, Russia, and Indonesia in the 1990s to the ongoing trillion-euro crime called the Third World debt. Conversely, videogames are hardly a luxury for wealthy elites, but are if anything more accessible to the masses than cinema or television. Film and TV productions require expensive set designs, production crews and distribution channels; videogames are accessible via inexpensive console systems, handheld devices and cellphones.

Perhaps most surprising feature of the videogame culture is its outrageous and incomparable *subversiveness*. The greatest works of the videogame culture are far more than mere color commentary on the social contradictions of neoliberalism – in particular, the decline of the US Empire and the rise of the East Asian region and the European Union. They are also touchstones of the resistance to neoliberalism, ranging from the anti-Maastricht mobilizations sweeping the European Union, to the pro-democracy rebellions flaring all across the Pacific Rim, all the way to environmental justice and labor rights struggles of North America.¹ There is no better example of this conundrum than Valve Software's *Half Life* (1998), the single greatest videogame of the late 1990s. Though *Half Life* begins with one of the hoariest science fiction tropes of them all – your character, Gordon Freeman, must fight off an alien invasion inadvertently triggered by a secret Government research program – Marc Laidlaw's crackerjack script deftly subverts the categories of Cold War science fiction, resulting in one of the canonic texts of the post-Cold War information culture.

Valve's achievement, however, was built on a key contribution by legendary game company Id Software, and that is the graphics engine licensed by Valve for *Half Life* – a historical detail which is more significant than it might seem. The reason is that Id pioneered many of the key building-blocks of the 3D game as a form, build-blocks which Valve transformed into a dazzling array of new kinds of content. Formed in 1990 as a four-person team, Id wrote a whole series of ground-breaking 3D classics for the personal computer market, ranging from *Castle Wolfenstein 3D* (1992) to *Doom* (1993), and finally the three versions of *Quake*. Though other games occasionally equaled or even surpassed Id in specific areas such as graphics, storyline, or scenery, none came close to matching the company's smooth integration of all the elements of successful gameplay, ranging from custom-built controls to clear interfaces, and from well-thought out scenarios and animation sequences to player tools and strategies.

Most of all, Id consistently pursued a policy of cooperation and respect vis-à-vis the gaming community, by actively fostering an egalitarian division of aesthetic labor between designers, players and consumers within the new space of the Internet. Id made a point of issuing

its games as shareware, i.e. issuing unofficial versions of its latest games to fans via free downloads, and encouraging honest feedback and game-testing from ordinary gamers.⁴ Not only did this allow for the continuous correction of errors and bug fixes, it also exposed the software to “porting”, i.e. the translation of programs from one variety of computer to another (e.g. from Windows-based systems to Macintosh machines, and later to Linux and console systems).

Porting had two beneficial effects on game software. First, given the rapid changes in computer hardware, the only real way to guarantee the long-term durability and stability of a given software project was to make the code as independent as possible from the quirks of any given hardware or software configuration. Secondly, the more users and communities which had access to the software, the greater the potential for feedback, testing and design innovation (*Quake*’s code, for example, was molded by countless hours of feedback, criticism, bug-testing and trial runs by loyal fans). At a certain point, both factors became mutually reinforcing: *Quake* fans initiated the highly successful effort to port or translate the *Quake* code across a variety of platforms, reported software bugs, and innovated new features. The result was a virtuous spiral of improved stability, further applications, more platform variety, etc. Id also encouraged game designers to write specialized scenarios and levels for their games, and to publish creative adaptations of their original work on the web without fear of copyright laws. In essence, Id democratized the design and testing process for videogames, in much the same way that Linux democratized the production of PC-based operating systems.

3D visual environments require enormous amounts of processing power: when a player moves or looks around in a 3D game-world, every object in view must be recalculated and rendered all over again. Due to hardware limitations, the arcade and console videogames of the 1970s and 1980s were mostly “scrollers”, i.e. two-dimensional games wherein a player-icon moved through a static maze of some sort (e.g. *Donkey Kong* or *Pac-Man*) or else scrolled through partially mobile background screens (e.g. *Defender* and *Stargate*). The earliest 3D games, namely flight simulators and racing simulations, made do with crude polygon grids, the primeval forerunners of the intricate polygon meshes of contemporary games. It was only in the early 1990s that programmers had enough processing power at their disposal to render halfway realistic enclosed rooms or corridors, and it was not until the mid-1990s that vertical movement became a standard feature of games.

The cumulative effect of all these individual changes is breath-taking: players no longer look at an abstract screen of stylized geometric shapes, but into an autonomous environment filled with moving objects, dynamic lighting effects, and a genuinely narrowed field of vision, plus subtle spatial and auditory cues (e.g. when players walk forwards or backwards, they hear footsteps and watch the screen tilt slightly from side to side, exactly as in real life walking or running). The result is a qualitative leap of aesthetic experience, best described as being able to physically step into the role of a movie character.

Doom and other PC games of the early 1990s also generated the need for more specialized input devices, for two main reasons. First, keyboards cannot transmit realistic turning signals: it simply takes too much time to raise and depress each key on the keyboard (say, the key to turn your point-of-view to the left). Realistic 3D action requires extremely variable, rapid response rates, ranging from very slight movements to a complete about-face. The ingenious solution here was to subdivide the controls into two sections: basic movement was handled by the keyboard, but the function of aiming was transferred to the mouse. In effect, the mouse locks onto your target icon, a small arrow or symbol located at the center of your field of vision. If you roll the mouse forwards, your point of view goes up to the ceiling; if you roll left, your point of

view shifts to the left, and so forth (counterintuitive as it sounds, the target icon stays smack dab in the middle of the monitor the whole time: it is the 3D environment which is moving across your screen). The overall result transforms small, irregular movements into precise and accurate turns, with greater speed and sensitivity than a keyboard or joystick.

Interestingly enough, this mode of mouse control can cause a certain amount of spatial confusion, due to the fact that the physical movement of the mouse clashes disconcertingly with the visual perspective of the player. When you roll the mouse forwards, the objects on your screen are scrolling downwards to create the *effect* of looking upwards at the ceiling. This can be surprisingly disorienting, for the simple reason that in the real world we tilt our heads *backwards* in order to look up at the ceiling, and *forwards* to look down at the ground. (Aircraft joysticks, incidentally, work on exactly the same principle: pilots pull back on the stick to climb, and push forwards to make the plane dive.) To make a long story short, 3D games quickly developed the additional and very welcome feature of an “invert mouse” mode, i.e. if you roll forwards, your view scrolls downwards, while rolling backwards means looking upwards, thereby harmonizing mouse movement with head movement.

All this may seem fearsomely dull, but the issue underlines one of the most interesting aspects of the 3D game, namely its somatic impact. Thanks to the increased sensitivity of game control, the player’s point of view becomes so remarkably realistic that inexperienced players are easily fooled into thinking their real-world body is actually moving up and down, or side to side. This painfully disrupts one’s sense of balance, which depends on the close coordination of physical with visual registers, and can result in episodes of unpleasant queasiness and headaches.

The phenomenon was quickly christened “Doom syndrome” by fans of the game, and is generally much more noticeable for spectators of 3D games than for the player involved. This is just the latest twist, of course, in a centuries-long process of estrangement between the corporeal and visual registers of aesthetic experience. Whereas 19th century passengers found the unaccustomed speed of the railroad genuinely terrifying, and where 20th century travelers endured car-sickness, air-sickness and latest of all space-sickness, Doom syndrome is one of the first genuine examples of web-sickness.

While each effect is more or less impressive, the true genius of the 3D game becomes apparent only when one experiences the entire ensemble together: when one hears one’s own footsteps echoing in the corridor, catches the sound of breathing bodies somewhere up ahead, signaling enemies nearby, or engages in an extended combat sequence with a host of realistically leaping, ducking, diving and spiraling opponents. Whereas the mainstream action-adventure films of the late 1980s, e.g. *Die Hard*, tended to limit video tropes to outrageous stunt sequences while preserving the basic narrative machinery of the Hollywood Western and the Bond spectacular (the highly-paid action-adventure star backed by expensive special effects), *Quake* and its successors began to systematically import video techniques into each and every aspect of game design.

The result, however superficially violent, has nothing to do with actual combat and everything to do with a gender-neutral sports ethos. True infantry combat consists of crawling, diving for cover, or else operating complex transport and war-fighting machinery; the 3D game is really a gleeful cross between dodgeball and racquetball, i.e. one must react to the opposition’s shots (unrealistically slow rockets and whatnot) while moving about in a relatively enclosed space of some kind. If there is a military model for the 3D game, it is not NATO but rather the sniper tactics, carefully planned engagements, and sophisticated recon and fire control of the Vietcong revolutionaries.⁵

No less striking is *Quake*'s systematic integration of other aesthetic media, something pioneered by the great Nintendo console classics of the 1980s. Unlike their arcade cousins, which offered an impressive array of sound-effects, the console systems of the 1980s didn't have the processing power to offer much more than electronic beeps, chimes and buzzes. Legendary Nintendo game designer Shigeru Miyamoto turned necessity into a virtue, by creating simple but catchy sound-palettes, consisting of three or four notes with rhythmic variation, constantly cycling in the background, and allowing player-generated moves (jumping, running, scoring points, etc.) to generate the main "sound-track" of the action. By the mid-1990s, plug-in sound-cards allowed videogames to relay intricate soundscapes.

In *Quake 2*, for example, the sounds of combat (gun blasts, footsteps, shrapnel) are interspersed with the screaming jet-whine of space-transports, all paced by a tingling low bass line halfway between a peal of thunder and the banging of a hammer on a metal drum (three separate tones, with a slight but noticeable reverb-effect, pitched a minor third apart). In the foreground, the high-pitched chip-voice of the intelligence computer which directs your mission cycles the words "Computer update" over and over again, in two mechanical subtones roughly an octave apart, and garnished with a reverb-effect. This is a direct reference of the sonic palette of early 1990s hip hop exemplified by Cypress Hill's eponymous album, which set the whines, scratches and loops of a transcendental telecommunications and information technology in motion towards the pulsating thunder of transport, air freight and satellite launch systems.

In fact, it would not be an exaggeration to claim that *Quake 2*'s neo-industrial architecture is really a kind of hip hop scenery. The interiors, for example, are an eerie cross between a child's dream of factory labor (nightmarishly oversized buttons, giant hooks and cranes) and the cybernetic bodies of the Strogg aliens, all garnished by the heavy metal chic of industrial metal walls, harsh fluorescent lights and ubiquitous square packing crates (some of which hide the odd ammunition box or weapons power-up). This architecture is replicated point by point in the sound-track, which ranges from thrash-metal theme songs to a wide variety of grinding gears, humming machines, beeping computers, weapons effects and combat damage, and of course the incomprehensible non-language of the Strogg.

The importance of the ensemble gives rise to some issues unique to the 3D game. For one thing, the seamless interaction of the various parts of the game becomes far more important than any single innovation in lighting, set design or special effects. Just consider the problem of widely differing player skills: if the monsters are too difficult, frustration quickly sets in, but if the monsters are not difficult enough, the result is a no less deadly boredom. Most 3D games allow one to preset the skill level between easy, medium, and hard to compensate somewhat for this, but game design must take into account the fact that players will improve their running, ducking and aiming skills while playing the game for hours on end. One of the interesting results is that AI software is slowly being extended into routine game-play, i.e. the game will "read" the player's abilities and adjust accordingly. There is the additional problem of narrative development, i.e. motivating the player to move from one map to another, while avoiding improbable transitions or deadly traps which frustrate the player. Typically this involves maze-style puzzles, wherein one must sequentially search one room after another, methodically clearing out increasingly difficult obstacles and opponents along the way. In keeping with the fine tradition of Nintendo's Mario franchise, *Quake 2*'s maps are full of hidden shortcuts, which reward active exploration of the environment with powerups, ammo or simply an easier trek.

Additionally, the sheer volume and intensity of the firefights means that the traditional videogame system of multiple player "lives" (generally three to start with, plus more if you

reached a certain point total) which gave players multiple chances to compete at a given skill level was no longer adequate. There were simply too many ways one could lose any given engagement, and maps were too large and sprawling to justify this narrative solution. As a result, videogames in the late 1980s turned to the ingenious solution of specialized powerups of various kinds, located at strategic places to allow the player to recuperate for normal wear-and-tear or to compensate for an initial mistake. (*Quake* offers health and armor power-ups, while *Half Life* features slightly more realistic medical kits and energy outlets). The ultimate solution, however, was the innovation of a “save” command, which stores the progress the player has made up till that point and permits the player to start over from that point on, instead of having to tiresomely repeat the whole map all over again. In terms of game-flow, saving games has become a necessity, for the simple reason that the average length of a game has expanded to well-nigh novelic proportions.

While the *Quake* series invented many of the key components of the 3D videogame, *Half Life*'s unique achievement was to assemble these elements into a genuinely multinational form, thereby creating the first 3D videogame with the narrative heft, scope, and intensity of a major Hollywood blockbuster. *Half Life* was the brainchild of Valve Software, a startup game company formed by Gabe Newell and Mike Harrington, two former Microsoft executives who cashed in their stock options in 1996 and formed their own independent game company. Contrary to what one might expect, Valve did not apply Microsoft methods to the gaming industry, but followed an open source model of game development, by employing a modified version of Id's graphics engine and assembling an entire team of talented designers, modelers and artists to create an unforgettable scenario and cast of characters.

Half Life's single greatest achievement was the introduction of scripting to achieve compositional balance. The problem of composition had long been the Achilles heel of the 1990s videogame. Whereas the adventure genre specialized in text-based puzzles, problem-solving and relatively complicated interfaces, sharply limiting its appeal to a narrow audience interested in puzzle-solving and strategy simulations, the pulse-pounding single-player shooter tended to run aground on the sheer sterility of successive combat sequences. Over time, the adventure genre developed increasingly sophisticated visual sequences in an attempt to generate the sort of narrative energy which puzzle-solving alone could not provide; such realistic images required enormous storage space (Riven's photographic realism, for example, required six separate CDs which had to be tiresomely loaded and unloaded). Conversely, shooters attempted to spice up their gameplay with diversions, traps and simple puzzles, which were often limited by the lack of character interfaces; *Quake*, for example, relied on a simple “mission update” screen, which relayed your latest objective (find a door, smash a computer, locate a data device, etc.). The upshot was that all too many adventure games ended in maddening frustration while all too many shooters ended in deadening boredom.

Half Life's ingenious response to the seemingly intractable problem of reconciling real world complexity with real-time simplicity was the invention of the embedded script. These are essentially detailed character interactions, triggered by a single specialized key. This allows your character to request help and information from other characters (they follow you into rooms, open doors and otherwise facilitate your escape, and also pitch in during firefights), while keeping the mechanics of such interactions to a bare minimum. This cleverly eliminated the need for bulky user interfaces, endless typing, and Adventure-style text commands, while preserving the randomizing element of player interaction. Your choices as a player generate real consequences, but never fatally derail the action. Crucial information about your mission is

subtly relayed via conversations with fellow scientists as well as friendly security guards (nicknamed “Barneys” by gamers, due to the fact that they all have an utterly anachronistic Andy Griffith-style drawl, despite the fact that the action takes place somewhere in Arizona). For added effect, the other characters even talk amongst themselves, dropping hilarious quotes along the way (after viewing the carnage of an experiment gone haywire, one scientist sighs, “Well, there goes our grant money”). The embedded scripts also speed up gameplay, since you can choose to ignore a given interaction and move on to the next level or objective, rather than tiresomely listening to the same dialogue over and over again.

Such sophisticated sequences put enormous demands on scriptwriters. Voices, intonations, facial expressions, dialogue and delivery must be perfectly balanced, generating just the right amount of narrative tension, while subtly developing instead of giving away the storyline. A single false note or missing cue can ruin an entire sequence; conversely, the correct quote or sound-effect can raise the most mundane event – say, opening a door – to a whole new level. Put another way, scripting is not really a technical skill, but rather a narrative or aesthetic one. This is why the single most common piece of advice given by gaming professionals to budding game designers and level designers is that technological and computing skills matter far less than aesthetic ones, i.e. drawing and shading skills, a well-rounded artistic repertoire, the ability to transcode or synthesize multiple elements drawn from a wide range aesthetic materials, and sheer narrative feel. The reason is that high-level languages and graphics engines are available to do the grunt work of compiling, coding and storing sounds and images; the true artistry lies in putting these materials and resources together in creative ways.

One of the key reasons for *Half Life*’s success was its egalitarian division of labor. Rather than creating a new graphics engine from scratch, Valve concentrated on building up a library of effects and textures from a licensed version of Id’s graphics engine. Visually speaking, where *Quake* raised 3D level design to an art-form, *Half Life* inaugurated the art of texture design. Walls look genuinely rusty, uniforms look like uniforms and not molded plastic shells (in fact, all of the character animations shine thanks to Ken Birdwell’s ingenious skeletal animation system), boxes and walls fall realistically apart into bric-a-brac and cement blocks, railings and ladders look just like they should, radioactive waste bubbles ominously, explosions look like explosions and not boxy yellow globes, and even the R-rated gore splatters just as it should.

Half Life also remedied a number of the most glaring deficiencies of the first two versions of *Quake*, most notably the monsters’ lack of intelligence (they were too predictable to be much of a challenge) and vertical movement (climbing ladders was difficult and dangerous). The opposition works as a team, by throwing grenades exactly where players hide, taking advantage of cover, and even running away when outgunned. Meanwhile, vertical movement is nicely supplemented by improved movement on ladders and a crouching option, plus some wonderfully frightening sequences in narrow crawl-spaces. *Half Life* also takes a sensible approach to the issue of monster placement, by using teleportation devices to zap monsters all around you to keep you on your toes (*Quake 2* relied on rather unrealistic trap doors to spring ambushes).

Half Life was the first videogame to truly transcend the hegemonic narrative forms of the Cold War era, namely the spectrum from the paranoid or spy thriller to the existential or high modernist auteur film. One of the key reasons for this was writer Marc Laidlaw, who was hired by Valve in 1997 to rework the barebones story of invading aliens into something new. Beginning with the priceless moment when you realize that the soldiers sent into the Black Mesa complex to deal with the situation are, to put it mildly, not exactly your friends, Laidlaw’s storyline generates a multinational content out of a high-energy plasma of multinational science

fiction (especially cyberpunk), the character-tropes of the Bond blockbuster, and the visual forms of Japanese anime and the Hong Kong action thrillers.

In this respect, *Half Life* fulfilled a tendency already latent in the leading works of the 1970s media culture, by disrupting the monopoly-national tropes of the Cold War media culture with multinational ones – a complicated way of saying, cinematic tropes get upstaged by video ones. Where the rapid editing techniques and martial arts athleticism of the Hong Kong superstars (Bruce Lee, Jacky Chan and countless others) showcased the rise of Hong Kong films, actors and directors capable of standing up to the best Hollywood productions, the dub technique of Bob Marley's reggae music and the studio innovations of the Sex Pistols' punk rock similarly narrated the musical decolonization of the Second World and First World working-classes, respectively; somewhat further afield, Tobe Hooper's *The Texas Chainsaw Massacre* (1974) mapped out the fault-lines of the post-1968 feminisms and gender micropolitics.

The limit-point of 1970s aesthetics, however, was precisely the violent clash of neonational and mass mediatic registers which provided it with its specific content, a.k.a. the local resistance to Americanization and the global onset of the media and consumer culture, respectively. There could be no reggae roots without Babylon music markets, nor punk rock without a record industry. Many of the best works of the 1970s emerged during a unique and unrepeatable window of historical opportunity, in which progressive neo-national forms could transmit, however briefly, an authentic multinational content. In the case of the Hong Kong filmmakers, the editing and compositional innovations of the *wuxia* films reconciled the operatic and theatrical traditions of mainland China with the marketing panache of a Pacific Rim entrepot city-state. In the case of reggae, a world concert industry bridged the divide between neo-colonial Jamaica and the specific musical provenance of African American musical culture (specifically, the studio innovations of Jimi Hendrix); while Hooper's thriller stages the allegorical rise of the female service-worker and the New Southern service economy of Ted Turner, CNN, and Coke out of a gruesome clan capitalism.

This may explain why, in terms of narrative form, *Half Life* has the most startling resonances with Leslie Marmon Silko's magnificent *Ceremony*, particularly the conclusion wherein Tayo, a Laguna Indian recovering from shell-shock after WW II, experiences a thermonuclear flash of intuition into the nightmare of neocolonialism:

He had been so close to it, caught up in it for so long that its simplicity struck him deep insight his chest: Trinity Site, where they exploded the first atomic bomb, was only three hundred miles to the southeast, at White Sands. And the top-secret laboratories where the bomb had been created were deep in the Jemez Mountains, on land the Government took from Cochiti Pueblo: Los Alamos, only a hundred miles northeast of him now, still surrounded by high electric fences and the ponderosa pine and tawny sandrock of the Jemez mountain canyon where the shrine of the mountain lions had always been. There was no end to it; it knew no boundaries; and he had arrived at the point of convergence where the fate of all living things, and even the earth, had been laid. From the jungles of his dreaming he recognized why the Japanese voices had merged with Laguna voices, with Josiah's voice and Rocky's voice; the lines of cultures and worlds were drawn in flat dark lines on fine light sand, converging in the middle of witchery's final ceremonial sand painting. From that time on, human beings were one clan again, united by the fate the destroyers planned for all of them, for all living things; united by a circle of death that devoured people in cities twelve thousand miles away, victims who had never known these mesas, who had never seen the delicate colors of the rocks which boiled up their slaughter. Leslie Marmon Silko, *Ceremony*. NY: Penguin Press, 1977 (245-256).

“Witchery” is very much Silko’s Laguna Indian version of Adorno’s notion of the bane of the world-system, namely the objective pressure exerted by the global marketplace on individual subjects, and of course it is of the deepest significance that Silko does not end the story there, but pushes beyond this moment towards the counter-magic of those ecological and postnational resistances unleashed by the era of decolonization.⁶ But where Silko outflanked the Cold War superstate from without, from the transcendental standpoint of the indigenous American Indian peoples reclaiming their history, lives and culture in the context of the great anti-colonial movements and revolutions of the post-Bandung era, the 3D videogame will stage its resistance from within, by means of the immanent displacement of Cold War narratives by informatic ones.

This is probably best grasped in the biography of John Romero, one of the key designers and creative forces behind Doom, id’s smash hit of 1993. Romero’s father worked in the US Air Force on various classified spy plane projects, and Romero himself grew up in northern California and central England as a devotee of computers and comic strips; even as a child, his computing skills made quite a splash at the Air Force base in the British town of Aclonbury.⁷ In a move which curiously echoes the trajectory of fantasy writer R.E. Howard, who created Conan the Barbarian back in the 1930s, Romero would go on to sublimate the constellation of a disciplinarian father-figure, a wildly inventive comic strip culture and a utopian military-industrial technology into Doom’s riveting fusion of science-fiction and horror registers: where Conan single-handedly defeated hordes of evil magicians, scheming kings and unearthly demons in hand-to-hand combat, the nameless Marine in Doom combats hordes of evil undead creatures on an isolated space station.

What separated Doom from the stereotypical WW II and nuclear survivor narratives handed down by the 1950s, however, was its canny fusion of the visceral kinetic energies of the 1970s horror and Hong Kong films with the registers of the 1980s sci-fi blockbuster (e.g. the audacious action sequences of James Cameron’s 1986 *Aliens*, without question the cinematic highwater mark of Thatcherism). But where *Aliens* recontained the theme of interstellar neocolonialism relayed by Ridley Scott’s original by means of that classic neoconservative ploy, the appeal to a ravenous, hyperreproductive alien biology (a.k.a. the alleged welfare mothers and inner city crack addicts who neoconservatives never tired of denouncing), *Doom* and its successors courageously biologized the technologies of neocolonialism. In a nutshell, the true protagonist of the 3D game is not the lone hero with the gun, but the proletarianized information guerilla.

This may explain why *Half Life*’s narrative imagery operates in the narrow spectrum between the high-tech accident or mass mediatic catastrophe and the biologic technologies of the modern-day chip factory. Whereas the former is allegorically staged by the detailed physical destruction of the Black Mesa base – scorched walls, blasted equipment, exploding rubble, and so forth – the latter finds its expression in the advanced weapons labs, journeys through air ducts, landscapes of industrial waste zones, and of course the aliens and their world. When not dodging (or firing at) circling Osprey and Apache helicopters, you must navigate missile silos, nuclear reactors, underground tunnels, tram systems, ventilation ducts, satellite launch systems, and even teleport modules. Probably the single greatest invocation of the global marketplace is the rotating hologram of the Earth which appears in the control room after you launch the Lambda satellite into orbit; this is accompanied by an invigorating sound-track, half fuzz-guitar, half electronic feedback – the clever reworking of the sonic mayhem of the rocket launch and the eerie whines and toggles of the control room machinery, respectively, into a kind of techno noir. In fact the

game's ubiquitous icon, the iridescent lambda symbol, is more than just another high-tech logo. The Greek letter and erstwhile mathematical symbol, surrounded by a circle, is rendered in a shocking fluorescent orange (rather than the red version below) and in a streamlined serif, suggesting a kind of global ideograph:



Even the title of the game is just the first in a whole series of unforgettable post-Cold-War puns, ranging from the protagonist of the story, Gordon Freeman (the Freeman were a notorious anti-Government militia group), the newly-hired MIT research physicist who becomes an accidental interstellar guerilla, all the way to Black Mesa Labs, the mythical top-secret research facility where the action takes place. Bearing in mind Marmon's text, this a pointed reference to the real-world struggle of the Diné for their tribal homelands against Peabody Coal Mining Co. and Federal agencies in the Black Mesa region in northern Arizona.⁸

Along the way, the paranoid tropes of the secret government base, the Area 51 conspiracy, the nuclear experiment gone haywire, and the invasion from outer space are all transformed into vectors of informatic class struggle – something revealed to us at the very end of *Half Life*, in the face-to-face meeting with the nameless Administrator (or so-called G-man) in a kind of interstellar tramcar. What happens next is, of all things, a positively Faustian job offer by the Administrator on behalf of unknown employers. While vistas of alien worlds cycle in the background, the G-man says the following, with a creepily bureaucratic intonation which isn't quite a recognizable foreign accent but isn't quite standard CNN-English, either:

Gordon Freeman, in the flesh – or rather, in the hazard suit. I took the liberty of relieving you of your weapons; most of them *were* Government property. As for the suit: I think you've earned it. The border world, Xen, is in our control, for the time being, thanks to you. Quite a nasty piece of work you managed there, I am impressed. That's why I'm here, Mr. Freeman. I have recommended your services to my... *employers*. They agree with me that you have limitless potential. You've proven yourself a decisive man so I don't expect you'll have any trouble deciding what to do. If you're interested, just step into the portal and I will take that as a yes. Otherwise... well, I can offer you a battle you have no chance of winning. Rather an anticlimax, after what you've just survived. Time to choose...

Leaving aside the interesting question of whether you ever really had a choice from the very

beginning (“Wisely done, Mr. Freeman! I will see you up ahead...”), this remarkable invocation of an interplanetary marketplace in which even the G-man and the deadliest agencies of Earth’s power-elites work for *someone else* pulls two rugs from underneath our feet, simultaneously. In the first place, if Xen really is only a border-world, a pawn in some vast interplanetary struggle, then there are clearly good aliens, somewhere, who allied themselves with the Earth to cut Nihilanth and its assorted stooges down to size.

This would explain the research labs Freeman encounters, as well as the suggestive clue that Lambda Labs sent scientists into Xen to collect specimens, thus drawing the Nihilanth’s fire in the first place; the logical corollary is that the worst aliens of all are really the human elites bent on monopolizing their contact with alien worlds and access to alien technologies, to the obvious detriment of everyone else on the planet. Second, Freeman is no longer a service-sector drone or a military grunt but a new kind of professional worker in a cosmologic labor market, whose skills are in great demand by the transgalactic Powers That Be – a clever allegory of the global professional classes, who operate in national service-sectors and are paid in national currencies, but are employed by multinational firms.

This is a strategy straight out of the toolbox of the greatest science fiction authors of the late 20th century, e.g. Stanislaw Lem, William Burroughs and William Gibson, each of whom repudiated the Cold War as a narrative convention by transforming national and international forms into multinational tropes. *Half Life* sublates Cold War xenophobia into Information Age xenophilia, by documenting the prison-break of informatic guerillas out of the bureaucratic infrastructures of the Pax Americana.

Half Life also puts a new spin on one of the oldest tropes of postmodern fantasy literature, or what Jameson would call the symbolic recontainment of threatening or otherwise subversive class identities by biologic codes, ranging from the cybernetic tropes of the 1950s to the informatic ones of the present. Surprising as it sounds, these codes weren’t always reactionary, but occasionally harbored the seeds of a radical identity-politics. At the glimmering dawn of postmodernism, Tolkien’s *Lord of the Rings* trilogy lumped together the most atrocious racist stereotypes of Africans, Arabs, Slavs and Cockney Britons to create Sauron’s underlings, the orcs, while portraying the heroic Ring-bearers as suitably Welsh dwarves, Norman elves, English gentry-hobbits, and Nordic heroes with Siegfried-style fetishes for broken swords – a fairly transparent attempt to dispel the threatening energies of the mass mobilizations of WW II by means of a theological neo-nationalism.⁹ But it should also be stressed that the sophisticated languages, magical lore and cultural mythologies of the Ring trilogy (Tolkien was a highly skilled philologist of early English and Germanic languages in his own right, who reacted allergically to the commercialization of language) ends up short-circuiting its own reactionary ideology: the final episode of the trilogy portrays the “scouring of the Shire”, a presciently counter-cultural mobilization against the evils of unchecked industrialization decades before the rise of the global environmental movement.

It’s worth noting that one of the most successful spin-offs of Tolkien’s epic tale, namely the text-based fantasy role-playing game *Dungeons and Dragons*, was one of the formative influences on the 3D videogame. D&D transformed many of the key features of Tolkien’s world – cinema-quality depictions of elves, magic, folklore, mythology and monsters – into a coherent gaming platform, replete with a complex set of character-classes and specialized professions (fighter, magician, cleric, thief, etc.), magical weapons and items, books of spells, a dice-rolling system to manage combat sequences, and of course an endless supply of monsters. With the help of a Dungeonmaster, players journeyed through game-worlds the size of Victorian-era novels, in

game scenarios which marauded unashamedly through the vast storehouses of traditional folklore, mythology, 20th century science fiction and fantasy literature. The focus was not really on the combat sequences, but on the ensemble of scenarios, player interactions, and sheer storytelling panache – in many ways, a kind of collective story-telling experience otherwise lacking in the Information Age. In terms of their inventory systems and game-flow, the 3D games are very much the graphics-based version of role-playing games, the only difference being that character-classes and player interactions are far more limited (character-classes in *Half Life*, for example, are limited to fellow scientists, friendly security guards, and of course the hostile grunts and aliens).

If the character-system of *Half Life* could be said to have one overriding model, it would have to be Alfred Bester's science-fiction novella *The Demolished Man*. Written in 1954, this latter portrays a benevolent world government on cybernetic principles, which mediates between the rights of ESP-sensitive citizens or "peepers" (mind-readers) and those of non-sensitive ordinary citizens (ESP capacity remains, however, and this is a key limitation of the narrative, hereditary instead of being socially acquired). The storyline concerns a New York City murder-mystery which slowly turns into an epic power-struggle between the professional cadre of espers, the Guild, and the agents of the power-mad chief executive of the Monarch corporation which wants to supplant them. While Bester's plot is far too ingenious to give away here, suffice to say that *Half Life* generates a similar atmosphere of suspense, by staging innumerable firefights between the grunts and aliens, giving you the sense of a cosmic clash between two giant bureaucracies: not so much rival national security states, but rival multinationals slugging it out for market share.

Media pundits of both radical and conservative bent are fond of trashing 3D videogames for being excessively violent. In fact, videogame violence is merely the fusion of one of the oldest comic registers around, namely slapstick humor, with the visual logic of the postmodern cartoon, wherein bodies are infinitely reproducible and where the weirdest conjunctions of tools, physics and game scenarios can be played out over and over again. One of the most entertaining sequences in *Half Life* is the inevitable moment when your player-character bites the bullet: you literally get to watch your character's skull roll across your field of vision (one eye is still in the socket, which could either be the ironic reprise of HAL's disembodied gaze in Kubrick's *2001*, or the Information Age update of the medieval memento mori, depending on your morbidity level). One can't help burst out laughing at the sheer outrageousness of the sequence. This is the comic parody of death, a computerized gallows humor straight out of the grand tradition of James Whale's *Frankenstein* or Sam Raimi's *Evil Dead* series, rather than the humorless celebration of the gallows one finds in, say, conservative harangues justifying the death penalty, or hideously sanitized Pentagon press conferences detailing the carpet-bombing of some hapless Third World country. The mainstream US news media did not broadcast the image of a single Iraqi corpse during the horrific carnage of the Gulf War; the 3D videogame reacts allergically to this state of affairs, by reveling in the corporeality which the mass media hypocritically seeks to repress.

Arguably the solitary work-habits, mandatory telecommutes and disembodied interactivity of information capitalism has created a genuine social need for increasingly graphic representations of the body, something underlined by the fact that one of the few profitable Web businesses during the 1990s was online porn. In fact, *Quake 2* has a striking undercurrent of corporeality, explicitly linked to a kind of interstellar neocolonialism, in the form of the harvesting machines and meat-processing plants which literally mine human beings for their biological parts: the villainous Strogg, it turns out, are half-machine, half-organic cyborgs, that is

to say cybernetic rentiers. On a certain level, of course, this is patently ludicrous – any life-form capable of interstellar space travel would simply cook bodies up from DNA, rather than rampage through other worlds. But after watching a news report about the illegal harvesting of organs in the Third World for First World citizens in need of transplants, it's difficult not to conclude that *Quake 2* hits the nail exactly on the head, after all. The cartoon violence of videogame culture is both a deeply-felt protest against late capitalism's neocolonialization of the body, and the utopian projection of a compensatory athleticism, where bodies are infinitely reproducible, and where no one really gets hurt, in the end.

Probably the single most reliable index of class ideology in the 3D videogame is its roster of monsters. For the most part, the *Quake* series works within the melodramatic conventions established by the progressive Hollywood and Hong Kong thrillers of the 1970s and 1980s (the span from *Three Days of the Condor* and *Enter the Dragon*, all the way to *A Better Tomorrow* and *They Live*): the hero must fight through some sort of technological maze or matrix, battling armies of vicious thugs, increasingly skilled sets of intermediate bosses, and finally an ultra-powerful big boss. What separates this from a routine glorification of the money-making entrepreneur or the Wall Street superstar is the fact that you must *earn* your role, by exploring your environment, learning to use various tools, and ultimately thinking, strategizing and feeling your way through the game, in a manner which resembles nothing so much as the patient, laborious acquisition of high-tech programming skills. Victory denotes not just sheer survival, but the demolition of the system as a whole; defeat is an anagram for stasis and recontainment.

The opposition, in turn, does not consist of fellow workers (*Quake's* Marines and *Half Life's* scientists and Barneyes) but rather brutal security forces and other repressive agencies. These are often stylized with a certain heavy metal mythology; the weakest Strogg in *Quake 2*, for example, look like members of a motorcycle gang or the stereotypical beefy foremen or straw bosses of a cartoonish assembly line, a motif repeated in the more powerful monsters, right up to the tanks and supertanks. The only really objectionable monsters are the scantily-clad female Strogg, rudely dubbed "crackwhores" by players due to their outsize busts, venomous faces, and penchant for throwing rockets at you; the sexist imagery could be forgiven, but not the fact that they're among the weakest monsters of all.

In terms of its player characters, on the other hand, *Quake 2* took its cue from Nintendo's SuperMario series and provided adequate gender balance: you can play as a male or female character, and the latter is as athletic and deadly as the male. It's worth noting that the Internet gaming community is far more gender-balanced, multicultural and multinational than one might assume; while the original gamers of the late 1980s were almost entirely white, male, US-based computer professionals, the Web has thoroughly multinationalized and plebianized the gaming community.

Half Life took a more subtle approach to its monsters, due to the fact that the humans are, appropriately enough, the worst monsters of all. In general, the aliens from Xen employ biological-informatic rather than military-industrial technologies; the closest equivalent to *Quake 2's* cybernetic rentiers are probably the alien headcrabs, creatures best described as a cross between a giant spider and a chihuahua suffering from demonic possession (they leap on hapless humans, eventually devouring their nervous systems and turning them into zombies). While the alien grunts are as big and fearsome as they need to be, the sequences where you face off against the US Marines are a rare delight: by stepping into the shoes of the Vietcong, you have the revolutionary satisfaction of paying the Pax Americana back in its own military-industrial coin. Like the NLF revolutionaries, you must learn to use your environment in creative ways, seek

allies from among the local scientists, and turn scavenged equipment and alien technologies against its original owners (among other delights, deploying surface-to-air missiles against US helicopters, and satchel charges against Special Forces ninjas).

Perhaps the only really problematic monsters in the original game are the Xen drones, which are tolerable in the interior sequences but bothersome during the later levels of the game – a classic example of faulty game design, i.e. a low-level monster with a high-level ability.¹⁰ *Half Life*'s designers also had quite a bit of fun with the boss-level monsters: the first, named Gonarch (possibly an offhand pun of gonad plus monarch), is a weirdly gender-bending giant spider whose rotund body, quivering beneath an armored carapace, resembles nothing so much as a giant *testes* – a clever gender-bend, for those interested in fantasy trivia, of Tolkien's ludicrously sexist female giant spider, Shelob. The very last monster is the Nihilanth, which resembles nothing so much as a huge *enfant terrible* (quickly christened by players as "the big baby") with a suitably mummified face. "For even Baal/feared children," wrote Brecht in his Expressionist classic, and the creature's mechanical guts, a combination of steel girders and rusty machinery, combined with the womb-like enclosure and vaguely fleshy surfaces of the Nihilanth's lair, do seem to suggest the postmodern update of an Expressionist science fiction thriller. On the other hand, when the monster is finally defeated, its head peels open to reveal a giant, malevolent brain, a more conventional reference to the mad computers and ruthless cyborgs of 1970s sci-fi.

Nowhere does *Half Life* shine more than in the inner core of the Black Mesa base. The *Residue Processing* levels in particular manage to evoke that rarest of all aesthetic frissons, the genuinely ecological shudder: players must jump, swim and crawl past a variety of giant wheels, crunching hammers, and flying transmission belts, while avoiding vats of bubbling toxic waste, leaking pipes, exploding equipment, and other industrial hazards. Whereas previous videogames generally focused either on a set of indoor levels or outdoor architecture, *Half Life* smoothly integrates both into harmonious set-pieces, each of which flows logically into the next. The expansive Arizona scenery and scenic dam in the *Surface Tension* levels are the perfect follow-up to the underground weapons labs, while the claustrophobic tunnel battles in the military base are the perfect preparation for the subsequent outdoor sequences. Meanwhile, a regular supply of scripted events (airstrikes, alien landings, falling buildings, etc.) is always on hand to break up the monotony of lengthy hallways and other transitions.

These finely-tuned landscapes are complemented by equally well-balanced soundscapes, which are so good that there are certain areas, e.g. *Surface Tension*'s mine-strewn desert, where players must their ears to survive. These soundscapes are often conjoined to scripted events, such as the gruesome encounters of hapless scientists with unfriendly alien wildlife, or the spine-tingling announcements which blare from Black Mesa's loudspeakers in a stilted, eerily computerized voice, the forerunner of the G-man's closing monologue (the ominous "Black Mesa PA system is now under military control", the still more ominous "All scientists report topside for questioning", and various coded instructions for the military death-squads).

Rather than bombarding us with theme songs or endlessly repeating the same set of effects, *Half Life*'s sound-track deploys a specific palette of sounds keyed to the specific level in question. In the interior levels, this means the hiss of electric wires, breaking glass, and the hum of elevators; later on, one hears the high-pitched tweaks and low growls of the alien grunts, the pop of sniper rounds, and the radio transmissions of the human grunts. During the cliff battle, the roar of the onrushing jet plane accedes to a low bass pulse, then a metallic drum brush, with very light feedback (essentially, the Valve theme music, which consists of a minor 3rd and another minor 3rd, a half-step below, which is not coincidentally one of the central musical motifs of the

late-1990s hip hop of Kool Keith's *Dr. Octagon*). Theme music is deployed sparingly, in short, targeted bursts, as with the running bass line triggered when you don your power-vest, the exhilarating thrash metal sequence played during your first run-in with the Marines, the guitar feedback pulse when you obtain the plasma rifle, as well as the accompaniment for the satellite launch sequence; one should also mention the very last sequence of all, a simple but effective techno loop with R&B vocals and a driving funk-style bass line which accompanies the credits.

Probably the single greatest contribution *Half Life* made to the 3D game was its sublation of the neo-national elements of the videogame culture – everything from the Cold War ideologemes of military-industrial protagonists and Third World aliens, to the sound-track of the 1970s horror film, all the way to the narrative tropes of the sci-fi spectacular – into a series of multinational infrastructures, ranging from mundane pass-codes to satellite launch systems. The most significant infrastructure of them all, however, is the tramcar system which not only runs the length and breadth of the Black Mesa complex, but literally and figuratively brackets the entire game. In fact, *Half Life* begins exactly as it ends, namely, with Gordon Freeman inside a tramcar: the key difference being, of course, that the tourist-style shots of Black Mesa in the opening tag are replaced by the abstract backdrop of stars hurtling behind the visage of the G-man. Connoisseurs of potboiler Cold War spy fiction will note that the G-man scene parodies one of the fundamental clichés of the genre, namely the concluding debriefing in a London or Washington DC office, and it is somehow entirely fitting that the *tramcar* – that archetypal symbol of urban public space – should incarnate the symbolic leap from the Cold War underground to the cosmologies of the Information Age.

The reinvention of new types of public space in the midst of the privatization-mad 1990s is one of the most prevalent themes of late 1990s media culture, everywhere from David Fincher's *The Fight Club* (1999), which invokes the urban squat in opposition to the skyscrapers of finance capital, all the way to the Wachowski brothers' *The Matrix* (1999), which signals the uprising of an emergent electronic commons against the financialized matrix of neoliberalism. *Half Life*'s own unique contribution to this commons was twofold: first, it inspired a plethora of freeware maps, mods and levels by a henceforth multinational gaming community, something we will more closely examine in the next chapter. Secondly, it helped to spur the rise of collective or team-play gaming via its official death-match version, *Team Fortress*, and its unofficial death-match spin-off, *Counter Strike*. By setting the single-player shooter in motion towards the collective space of death-matching, *Half Life*'s interstellar tramcar opened the portal to the aesthetics of the 21st century.

Endnotes

1. The keiretsu are not, to reiterate the point made in Chapter 4, centrally-directed conglomerates, but rather vast and decentralized networks of allied firms. Generally speaking, these networks take the form of interlocking shareholdings, wherein each group member holds a nominal amount of every other member's shares and obtains long-term financing from the main bank of the group, effectively precluding hostile takeovers and permitting management to concentrate on long-term planning rather than short-term profitability. In a nutshell, 3D videogames are written by the smallest and most free-wheeling software companies, but operate on equipment and hardware produced by the largest of these keiretsu.
2. In one of the greatest ironies of corporate history, Intel is much more aware of this transformation than Microsoft. The difference is probably due to the fiercely competitive nature of the hardware business, where AMD and Via are giving Intel a run for its money. Microsoft has no such similar experience with cutthroat competition, and has done its best to ignore the open source software movement in the vain hope that the latter will simply go away.
3. "Open source" means the source code for a program is made available via downloads to the public at large (either for free, or at a nominal charge). The only catch is, the end-user is not allowed to turn around and sell the original downloaded code as their own creation, but is allowed to alter the code and then redistribute it for non-commercial purposes, i.e. for free or at a nominal charge. Such software is referred to as "copyleft", in contrast to the traditional notion of the copyright. The basic idea is to create a public library of tools and programs independent of the control of any given corporation or government agency, programs which are available to any interested citizen, something which has spurred a dramatic advance in the socialization of informatic labor. Thanks to the Internet, thousands of volunteers can collectively write, test and debug the most amazingly complicated code; the result is a quantum leap in productivity, whereby a freeware operating system such as Linux can significantly outperform Microsoft's commercial Windows products in terms of reliability, security, cost and speed.
4. Despite its moniker, the graphics engine is responsible for more than just visual effects: it is the software responsible for integrating visual effects, sound, narration and game-play. Often game companies will license their graphics engine for use by other firms, who can thus create their own background scenery, story and characters without worrying about how to reinvent an entirely new rendering system. Interestingly, many of the software techniques used to handle 3D environments (the use of polygons, clipping to determine which objects screen out others, surface rendering, dynamic shadowing and the like) are beginning to overdetermine the evolution of the hardware, to the point where the gaming programmers have become valued advisors to major graphics chip vendors.
5. The original Doom series, though supposedly set in outer space, drew heavily on horror and slasher narratives, i.e. the enemies were various undead monsters, demons and the like. By the era of Quake, the science-fiction registers had triumphed over the theological ones. This is nicely underlined by Quake 2's opening cut scene or video clip: we see the logo of the game, a three-dimensional basalt carving of the letter "Q" with two lower serifs jutting out like medieval spikes, slowly rotating in space. The logo glistens briefly, while a recorded mish-mash of voices

informs us of the landing of hostile space aliens from Stroggos, the destruction of Earth's major cities and the plundering of Earth's natural resources, and finally a counter-offensive against the Strogg home planet by an elite US Marine Corps mission; the logo then glistens briefly, and then explodes into a shower of fragments. The next sequence illustrates the landing on Planet Stroggos: two military spacecraft float gently through space to a stirring martial sound-track, and launch tiny, one-man landing pods into the atmosphere. An accompanying radio broadcast narrates the hellish descent, with an alien EMP gun (a significant reference not to the Cold War but to the Russian pulse guns which shot Corto out of the air in William Gibson's *Neuromancer*) wiping out most of the force, until our own particular pod, clipped by another craft and spinning dizzily out of control, careers over a sprawling alien base industrial and military installation and crash-lands in a Strogg warehouse, where the action proper begins. None of this, counterintuitive as it may seem, has anything to do with American imperialism; Q2 is neither the live-action clone of those 1980s action movies exemplified by James Cameron's *Aliens*, with its ferocious military-industrial colonialisms, gender-bending androids and scheming (though carefully underplayed) corporations, nor the video expansion unit of that dismal monument to mid-1990s Wall Street neo-nationalism otherwise known as *Independence Day*, but rather that interesting new thing, a multinational action-narrative of the new global professional-class. In a nutshell, the Strogg are clearly *alien rentiers*, who employ a military-industrial complex to suck the planet dry of its human and ecological capital, until the Earthlings stage a revolution.

6. Adorno makes a point of stressing that the bane draws its energies from the canalized or diverted resistance of subjects to the dictates of the total system of capitalism, thereby holding out the utopian hope that the ruthless dictate of that capitalism to accumulate, accumulate, accumulate, with no regard for people, their culture or the ecology at large, might someday be abolished: "In human experience, the bane is the equivalent of the fetish-character of the commodity. What is self-made becomes the In-itself, out of which the self can no longer escape; in the dominating faith in facts as such, in their positive acceptance, the subject worships its mirror-image. The reified consciousness has become total as the bane. That it is a false one, holds the promise of the possibility of its sublation: that it would not remain such, that false consciousness would inescapably move beyond itself, that it could not have the last word. The more the society is steered by the totality, which reproduces itself in the bane of subjects, the deeper too its tendency towards dissociation. This latter threatens the life of the species, as much as it denies the bane of the whole, the false identity of subject and object. The general, which compresses the particular as if by an instrument of torture, until it splinters, labors against itself, because it has its substance in the life of the particular; without it, it sinks down into the abstract, separate and voidable form. Franz Neumann diagnosed this in the institutional sphere in *Behemoth*: the disassembly into disconnected and warring power-apparatuses is the secret of the total fascist state. Anthropology corresponds to this, the chemism of human beings. Unresistingly delivered over to the collective bad state of affairs, they lose identity. It is not entirely improbable that the bane is thereby tearing itself apart. What would like to provisionally gloss over the total structure of society under the name of pluralism, receives its truth from such self-announcing disintegration; simultaneously from horror and from a reality, in which the bane explodes. Freud's *Civilization and its Discontents* has a content, which was scarcely available to him; it is not solely in the psyche of the socialized that the aggressive drives accumulate to the point of openly destructive pressure, but the total socialization objectively breeds its counter-player [Widerspiel], without to this day being able to say, whether it is the catastrophe or the

emancipation.” Theodor Adorno, *Negative Dialectics*. (My own translation). Frankfurt am Main: Suhrkamp Verlag, 1997 (338-339)

7. “His sophomore and junior years of high school were spent in England. His stepfather worked with U.S. spy planes in a highly classified job during the mid ‘80s. The job meant traveling all over the world. A relocation to the Royal Air Force base in Aclonbury (in central England) put the family closer to his destinations. All John cared about was that the base high school had just gotten its first personal computers.

‘It was cool because I was showing them how to do things with the computers, and they let me do it,’ he [Romero] recalls. The faculty more than just let him do it, his stepfather remembers. Word about John’s skill raced around the base.

‘Most of what happened at that base was, and still is, top secret,’ Mr. Schuneman says. ‘One day the guys working on one of the most classified projects asked if they could borrow John. I remember being stunned.’

John recalls a group of pilots from the Aggressor Squadron showing him some cool simulation software. And, he says, he showed them a few things to tweak the graphics.

What he didn’t see were the walls of top secret computers, documents, maps and other materials plotting Cold War strategy, Mr. Schuneman says. All those were screened off behind curtains, security guards and nervous officers.

‘To this day I don’t think John realizes that he was advancing a very important simulation program,’ he says. ‘As far as he was concerned, he got to do something neat and earned \$500. But what he really did was worth tons more than that. I wish I could tell you, but it’s still classified.’ Todd Copiletz. ‘Doomed’ to Transform the Computer Game Industry. May 11, 1997. *Dallas Morning News*.

8. See <<http://www.theofficenet.com/~redorman/pageaof.htm>> for a fuller account of the Dineh struggle.

9. One could argue that the famous climactic scene of the trilogy wherein Frodo, as the heroic Superego, falls prey to the malefic spell of the Ring on Mount Doom, only to be rescued not by Sam’s mediating Ego, but by Gollum’s literally and figuratively *doomed* Id, is the recontainment of the great Labor and anti-colonial upsurge of the 1945-47 conjuncture in a theological turn (something confirmed by the episode of the Mines of Moria, a political fable of the collapse of Britain’s coal industry if there ever was one; by that measure Mount Doom is probably the symbolic proxy of the British steel and armaments industries).

10. Specifically, if they’re within the player’s field of vision, their electrical discharge attack never misses (this is particularly problematic during the Xen sequences, where a lack of cover and lots of drones are only partially offset by the health power-up devices and energy-pools). This is, to be sure, a minor complaint; *Unreal* is a far worse offender in that regard. Though *Unreal*’s graphics were superb, the game designers gave its lower-level monsters far too much firepower, making the early combat sequences no fun at all. The very first mobile monster one meets, for example, has a ridiculously overpowered multiple rocket launcher, while the lethal ambush near the power generator is simply unforgiveable. Ideally, difficult sequences ought to frighten and weaken players significantly, not destroy them altogether; *Quake 2* made up for the limited intelligence of its monsters by crafty level design, and by throwing in a number of

relatively weak monsters next to a powerful one, thus making for unpredictable and exciting gameplay. In fairness to *Half Life*, the concluding levels of the game's expansion pack, *Opposing Force*, took care to avoid making the same mistake, resulting in an astonishingly above-average sequel.

Chapter 6

The Black Widow's Lair

After the watershed of *Half Life* in 1998, three innovative bodies of work picked up where Valve's epochal achievement left off: Neil Manke's single-player maps for the *Quake 2* and *Half Life* engines (1997-2001); *Serious Sam* (2001), Croteam's remarkable serialization of the first-person shooter; and *Max Payne* (2001), Remedy's stunning reinvention of the 3D action game. Individually, each of these works revolutionized the realms of 3D mapping, production design and game-play, respectively. Collectively, they opened up the post-American age of videogame culture.

Manke's maps are probably the most direct evidence of this process, simply because Manke is a resident of Kamloops, Canada, a region on the fringes of the high-tech Pacific Northwest consumer culture which spawned Valve, while his maps were created as freely downloadable, non-commercial freeware by a multinational team of some of the finest modelers and artists in the gaming community.

Somewhat further afield, the world-class graphics engine and finely-honed game innovations of Croteam's *Serious Sam* testify to the rise of an indigenous EU game culture. Croteam is based in Zagreb, Croatia, one of the successor states of the former Yugoslavia. *Serious Sam* became an overnight sensation thanks to a canny admixture of Central European design, East Asian console game-play, and the politics of the EU's geopolitical expansion.

Geopolitics is also the key issue for Remedy, though in a somewhat different context. Remedy is based in Helsinki, Finland, one of the late-blossoming social democracies which did not ascend into the ranks of the First World until well after WW II. Remedy turned Finland's relative lack of an indigenous cinematic tradition into a dialectical advantage, by integrating the most advanced video techniques of the John Woo thrillers into the 3D videogame. In effect, Remedy did for the 3D action game what Nokia did for the cellphone industry, i.e. popularized what was once a luxury or high-end information commodity.

Without question, Neil Manke was the single greatest 3D mapper of the 1997-2001 period. Whereas other authors excel at two or three aspects of mapping – set design, monster placement, or lighting – none approaches the orchestrated brilliance of Manke's mature work, which combines narrative subtlety, sterling game-play, and superb design while consistently pushing the graphics engine to its limit. Working with a multinational team of some of the very best sound-designers, play-testers and model-builders around, including the well-respected Einar Saukas, Magnus Jansén, Jack Cooper, Paul Taylor, and Dave Waters, Manke completed the narrative revolution inaugurated by *Half Life*. In so doing, he also set a new benchmark for the 3D action games of the future.

Manke's first works of note were based on id Software's *Quake 2* engine, and can be divided in three main groups: the action-adventure series *Soldier of Fortune*; *Slaughtership*, a level set on an alien spacecraft; and finally the three-part *Coconut Monkey* series. *Soldiers of Fortune 2* is a more or less straightforward action level, worthy of note mostly for its convincing outdoor scenery, as well as unusual touches such as a helicopter and a lake-bound submarine. *Soldiers of Fortune 3: Desert Bloom* went still further, featuring a gripping opening hang-glider sequence, witty voice scripting, and entertaining architecture, as well as a couple of sophisticated scripted sequences involving enemy gun turrets and a friendly (if not quite reliable) mortar unit.

Soldiers of Fortune 4: Cold as Ice added a plethora of new designs and opponents, ranging from well-designed polar bears and wolves to strikingly realistic outdoor scenes of snow, ice and waterfalls.

Impressive as these were, Manke's real breakthrough came with the *Coconut Monkey* series. The first of these, *Paradise Lost*, features a tropical island on the eve of a massive volcanic eruption. The player assumes the role of Coconut Monkey, the official mascot of PC Gamer, the gaming magazine which began distributing Manke's levels in 1997. From the opening escape sequence to the final battle at a beach-house, and from lava-spills to the thunder of the eruption in the distance, *Paradise Lost* exhibits the visual energy, expressive detail and hair-trigger unpredictability of a Nintendo console classic. The second adventure, *Dry Gulch*, is set in a mythical wild, wild West, replete with mining tunnels, mountains, sagebrush, and a design motif which has become a Manke trademark: a realistic moving train decorated with the logo of PC Gamer.

This is a significant achievement considering that the *Quake* engine, although the best of its day, was not well-equipped to portray realistic moving vehicles, curved surfaces or outdoor sequences. Since trains are relatively blocky vehicles anyway, Manke added a sound-track and specialized textures (including a coal hod) to make the sequence work. The storyline of *Dry Gulch*, however, is less compelling than its predecessor, thus making the map more of a pure action experience than a narrative one.

The third *Coconut Monkey* adventure, *Saving Private Monkey* (the title refers to Spielberg's medium-grade war drama, *Saving Private Ryan*) is simply outstanding. After being transported back in time to the Normandy landing, Coconut Monkey must fight through hordes of Nazis in order to return to the present. The scenery ranges from WW II pillboxes to burning hamlets, and from stained-glass windows and Nazi flags to realistic guard dogs. Enemies wear Wehrmacht uniforms, and even shout "Schweinhund" and other German niceties. While dodging artillery barrages and even a crude enemy tank, players navigate through authentic WW II bunkers, wrestle with 1940s gunnery technology, and experience a hilariously incongruous telephone sequence (whenever a phone rings, the voice on the other end of the line asks innocently, "...Nathan?" before hanging up). One other notable detail is a clever subroutine which rendered semi-realistic pools of burning flames, nicely anticipating the realistic smoke and explosion effects which *Half Life* would excel at.

If *Coconut Monkey* can be considered a masterful étude, brimming with flashes of what was yet to come, Manke's next set of projects were truly symphonic in their scope and complexity. The turning-point was Manke's shift from the *Quake* engine to the *Half Life* engine in 1999. In a manner which recalls to mind Beethoven's orchestration for the Third Symphony – the notation called for an instrument which had not even been invented yet, namely the French horn – Manke's final *Quake* maps already anticipated *Half Life*'s advanced texturing and scripting capabilities. This is most evident when comparing Manke's first *Half Life* map, *USS Darkstar*, with his earlier spaceship map, *Slaughtership*. Though this latter had some nifty sequences, ranging from an impressive asteroid strike, an astounding power generator room, and even the gruesome interior of a Strogg kitchen, replete with an axe which flies at the player's head, the *Quake* engine put severe limits on what Manke could do.

By contrast, *USS Darkstar* opens with a panoramic shot of the Darkstar spacecraft worthy of Lucasfilms, and only continues to accelerate from there. Players take on the role of an onboard scientist, and must wend their way from crew quarters to the laboratory, encountering a number of scripted events along the way (including the real-time landing of a shuttlecraft in the docking

bay). Such realistic vehicles were far beyond the capabilities of the original *Quake* engine, but are easily handled by Manke's ingenious variation on *Half Life*'s Osprey and Apache models.

When the inevitable high-tech catastrophe happens and aliens begin to invade the ship, players are confronted with a spellbinding admixture of pulse-pounding action, atmospheric transitions and mission-oriented puzzles. One of the most striking features of Manke's work is its uncanny capacity to rework the extremities of disorder and panic-stricken pandemonium into the most exquisite formal symmetries. Adorno pointed out long ago, in a disquisition on the Second Viennese School, how the conflict between the categories of chaos and order in musical Expressionism drove the atonal composers towards an ever more totalizing counterpoint.¹

There is a strikingly similar dynamic at work in Manke's maps, which transform *Half Life*'s game-scripts into an Information Age counterpoint. In *USS Darkstar*, the opening cut-scene of the ship and the shuttlecraft is mirrored by the closing sequence of the escape pod and the alien ship, while the symbolic shrinkage of the player in the teleportation module is answered for by the symbolic expansion of the player in the planetarium. Meanwhile, ominous public address announcements issue from the ship's computer, detailing how the aliens are taking over one subsystem after another. Just as *Half Life* gradually teaches players that human beings are the worst alien invaders of all, so too does *USS Darkstar* decode the interstellar neocolonialism of the Cold War space opera.

Manke's scripted events equal and occasionally even surpass *Half Life*'s lofty standard. Players must learn to use a handily-placed incinerator, operate a forklift, navigate flooded passages and fire a small cannon. During the warehouse sequence, zombies not only break out of their boxes to attack the player, but one particular zombie walks over and turns off the lights. Manke even makes sure that the overhead girders partially shield the player from the alien soldier teleported onto the balcony later in the sequence. Given the lack of cover at that point, the chances of survival for weaker players would normally be slim; but Manke respects the cardinal rule of 3D game-play, namely to privilege motivation over frustration (the same logic is at work in the early confrontation with the giant spider, which is an extremely tough opponent in *Half Life*, but very weak here).

The subsequent teleport sequence is masterful. Due to a computer glitch, the player is inadvertently shrunk down to the size of a mouse. To return to normal size, players must scamper up furniture the size of apartment blocks, while avoiding a lethal mouse-trap and other hazards, and even explore the bizarre, rainbow-hued interior of a security computer. The cavernous low-gravity fusion chamber is another brilliant touch: ninety-nine out of one hundred mappers would spoil this sequence by either making a fall to the floor fatal or heavily damaging, or creating a solid maze of machinery too difficult for low-powered computers to easily render. Instead, Manke provides a see-through forcefield as a floor, which gently catches players if they fall (even proficient players may fall once or twice while trying to jump onto the fretwork). Not only does this give the player a fighting chance against the airborne aliens, it also allows us to admire the scenic field of stars in the background. The same principle is at work in the single most visually arresting moment of *USS Darkstar*, namely the planetarium where various blue, white and red stars shine in glorious, miniaturized 3D.

This delicate counterpoint between biological interiors (terraformed holding pens and ingeniously scripted zoological experiments gone haywire) and cosmological exteriors (vistas of the cosmic void, transparent tunnels and elevators) allows Manke to move beyond the two main visual palettes of *Half Life* – namely, the sterile metal surfaces, dusty greys, rusted browns, and bright red emergency signs and lasers of the Black Mesa complex on the one hand, and the

scabrous green, blue and purple hues of Xen on the other.

Intriguingly, both palettes are fused into the rainbow colors, shimmering force-bridges, muted greens and charcoal greys of *USS Darkstar*'s security computer. This suggests the computer is nothing less than a stylized informatic microcosm, a fantasm of the interior of the late 1990s personal computer, right down to the obligatory cooling fan, which complements the macrocosmic space of the planetarium.

Manke's next project, the three-part *They Hunger* series (subtitled *Guess Who's Coming to Dinner*, *Rest in Pieces*, and *Rude Awakening*), would push the informatic microcosm towards its political content, in what can be described as a gruesome journey into the heart of neoliberalism's darkness. Instead of Gordon Freeman, players step into the role of a popular writer of horror fiction, who is vacationing in the countryside when the Black Mesa disaster strikes nearby. Horror narratives have long been one of the most productive sources of narrative innovation in the neoliberal era, everywhere from Tobe Hooper's ground-breaking *Texas Chainsaw Massacre* (1974) to Sam Raimi's spine-tingling *Evil Dead* (1981), all the way to the late 1990s *Buffy: The Vampire Slayer*. Manke's unique contribution to this lineage is the invention of what can be termed 3D horror gaming.

Two key design innovations distinguish *They Hunger* from Manke's previous work. First, the player-character does not have the benefit of a protective power-vest. Normally this would make the game-play frustrating, but Manke turns this extreme vulnerability into an asset, via careful monster selection (e.g. very few of the early monsters have distance weapons), clever map design, and extra-strong health packs. Second, Manke employs a wealth of customized textures, monsters and weapons models, editing or tweaking almost every single one of *Half Life*'s original effects. The textures are superbly rendered, ranging from limestone tunnels to wooden surfaces, and from the dusty interiors of crypts to the burning hulks of overturned cars and trucks.

Guess Who's Coming to Dinner, the first episode in the trilogy, features an impressive array of monsters. The zombies are no longer Black Mesa personnel, but male and female civilians in business suits and skirts, as well as the occasional zombified police officer. Unlike the zombies of *Half Life*, who are clearly under the control of living aliens, these zombies not only look like the undead, but gurgle comments such as "Hunger-r-r...", "Flesh", "Why do we hunger-r-r...", "Live brains", and "Fresh meat" – dialogue lifted in part from the *Night of the Living Dead* horror comedies of the 1980s. The female zombies, for their part, utter bone-chilling enticements such as "Mommy's hungry-y-y..." and "Come to Mommy...", suggesting that the family sphere has become as cannibalistic as the work-world. The dialogue and sound-track are superb, pacing the occasional scratches and howls of animals in the underbrush with periods of tense silence, shattered by the chime of a church bell, the hoarse cry of a zombie, the howl of animals or birds in the distance, or shards of glass shattering underfoot.

In addition to artfully sampling, quoting or bracketing almost every quality horror film ever made, Manke packs a remarkable narrative punch into the outdoor sequences, by employing trees and underbrush (very difficult to render with late 1990s 3D technology, but glossed as tree-like silhouettes which rustle just like real trees), architectural ingenuity (e.g. massive tree-stumps, floating rafts, and hovering helicopters), as well as scripted scenarios which build narrative tension from one encounter to the next. At one point players encounter a police officer near a house, whose back is turned. Expecting rescue or assistance, players approach, only to discover it's a zombie cop – and still worse, a zombie cop capable of using a gun. Those quick-witted enough to survive the encounter immediately take the two fundamental lessons of all

zombie thrillers to heart: the authorities are not your friend, and happiness is a fully-loaded shotgun.

Manke will gradually increase the difficulty of these sequences by expanding the number and type of opponents, while expanding the terrain features to include everything from swamps to cave-tunnels. *Guess Who's Coming to Dinner* also takes a page from the middle sections of *Half Life*, by counterpointing jumping and leaping puzzles with dramatic scenery and textures. Players must navigate shifting lava pits, explore zombie-infested lava tunnels, outwit carnivorous fish in a lake, and employ a steam vent to “bounce” up a sheer cliff-face. *Half Life*'s scripting capabilities truly shine in the subsequent train sequence, where players drive a full-scale train along a track (replete with warning whistle, gear changes and sound-effects). It is only in the later stages of the episode that players confront multiple challenges, e.g. the combined land and sea opponents of the dam sequence, or the zombie police in the town sequence, areas which require both finely-honed game skills as well as creative improvisation.

Following a truly dire catfight in a cellar, players eventually reach the DJ's radio station, where they must press a button to radio for help. It's worth stressing that almost every single switch or toggle in *Half Life* is mono-functional: that is, players press a button to unlock a gate, find a keycard to open a door, etc. But Manke has the wonderful intuition of guessing that the most logical reaction of the embattled player will be “twitch finger”, i.e. jabbing at the radio button over and over again. During the resulting dialogue, the radio operator remains strangely calm, saying simply that “We're very busy here” and refusing to believe that flesh-eating zombies are walking the earth. What makes the sequence so compelling is that we only hear the radio operator's dialogue, allowing us to identify almost completely with our character: the frenzied pounding of the player's fingers on the keyboard is louder than the most gut-wrenching scream. It is only at the end of the first episode, after the player has been captured by a zombified Sheriff Rockwood, that the spine-chilling realization sinks in that the zombies must have figured out how to operate radio sets, too.

The second episode, *Rest in Pieces*, begins with an astounding scripted sequence. The player is locked in a cell, and watches a few human prisoners attempt to escape the jail, only to be cut down by the zombies. Just when it seems the player is doomed to become zombie-food, one of the surviving human police officers blasts open the cell with a vehicle-mounted rocket launcher (Rockwood, meanwhile, makes his escape). In addition to gorgeous, all-new textures, ranging from purple underground tunnels to the ivy-covered walls of the Rivendale asylum, Manke provides us with a host of new weapons. One of the very first items players acquire is, interestingly enough, an umbrella – one of the great mediatic symbols invented by Patrick McGoochan's video classic, *The Prisoner*.

In fact, Manke will replace *Half Life*'s signature melee weapons – the crowbar and pipe wrench – with three new items: the umbrella, the service wrench, and the garden spade. Each of these items is found in a specific space: the first, in the police station; the second, in the service station; and the third deep underground, at the entrance to part of the Black Mesa base, a significant constellation which we'll return to in a moment.

The scripted events in *Rest in Pieces* are particularly noteworthy for their sheer density. These range from simple motifs, such as exploding television sets or microwave ovens, artfully-constructed ambushes (e.g. the wickedly fast packs of zombie dogs on the asylum grounds, a citation of the werewolf genre), and radio broadcasts or tape recordings (cf. the military radio which relays the gruesome fate of a Black Mesa recon team, or the tape-recorders in the asylum). In contrast to *Guess Who's Coming to Dinner*, which follows an essentially linear design –

tunnels interspersed with narrow outdoor pathways – *Rest in Pieces* features multiple scripted events, often nested within each other, located in an entire facility. The morgue sequence where you accidentally resurrect one of the skeleton zombies, for example, involves three separate script-events: the tape-player, the resurrection process, and the resultant explosion which leads to a new area of the map.

Three other script-events lurk in the laboratory, ranging from another involuntary zombie resurrection to a gruesome encounter in the lab’s refrigeration unit (a quotation from Tobe Hooper’s *The Texas Chainsaw Massacre*). This gives rise to some truly hair-raising sequences, such as the moment when one of the monsters breaks loose and begins chasing after its creator, the mad Dr. Franklin; or the tunnel sequence, where the player must chase *after* a rampaging bullsquid, a creature one would normally run *from*. Manke even salts straight action sequences with original character-animation, ranging from the zombie cop who falls on the slick floor in the Rivendale asylum, to the zombified heart beating merrily in the morgue’s examining room, to the moment that Alfred, Dr. Franklin’s assistant, stops to tie his shoelaces in mid-conversation.

Manke’s monster designs display an equally sharp wit: the fleshless skeleton-creatures complain about how cold they are, and when they do attack, they intone in surprise: “So much flesh...”, “Human”, “Flesh-creature” and the hilarious non sequitur, “Sssooo-faaaa” (a reference to the humble sofa). It’s difficult not to conclude that the skeletons are, basically, *alien couch potatoes*. By contrast, the linebacker-sized Frankensteins unleashed by Dr. Franklin – “Franklinsteins”, as it were – are dead ringers for the Hollywood monster of the same name. (Manke gives us a broad hint, by draping Dr. Franklin’s lab with cinema-worthy electrical effects) The third new monster, the Hand, represents the purest tactility of all: it is simply an undead, severed hand, a horror genre staple which can be traced all the way back to *The Thing* from the Addams Family TV series.

Far from being an innocent or random choice of monsters, this roster is closely linked to the three melee weapons mentioned previously. The mediating code which links the monstrous projections of body with the no less monstrous introjections of the praxis-making tool is, of course, the tool-using body. We know that the umbrella is centrally associated with the interior of the police station, while the wrench is associated with machinery – specifically, the car in the shop, as well as the gears of the underground switch-room. The garden spade, for its part, is associated with underground digs or tunnels. Note further that the skeleton-creatures are associated with the morgue, that is to say, the dissection of bodies. The Frankinsteins are associated with laboratory products, that is to say, dead body-parts which have become living creatures. Meanwhile the hands are associated with a roof or vertical access of some sort: the first is located on top of an asylum roof, three others guard an important ladder, while the last is in an attic crawlspace.

In the case of the umbrella, the mediating bodies in question are those of the security forces, or the malign Sheriff Rockwood and zombie cops, versus the few remaining friendly police. The wrench, on the other hand, seems to point to the bodies of tool-using or technical personnel. These run the gamut from the mad Dr. Franklin and the frenzied skeleton-creatures, who both wield electricity as their weapon or tool of choice, to the friendly scientists and Alfred. This suggests that the spade does not connote the undead creatures which literally and figuratively rise up from the ground, so much as their literal and figurative gravedigger, i.e. the sole figure capable of outmaneuvering the twitchy mobility of the Hand while countering the brute materiality of the Frankinsteins. This gravedigger, of course, is nothing less than the body of the player-character – that is to say, the horror fiction writer.

In retrospect, *Rest in Pieces* is saturated with such reflexive tropes, ranging from the doctor's offices, which are named after the real-life members of Manke's programming team and contain their real-life photos, to the scene in Dr. Franklin's laboratory, where scanned facsimiles of the team members' heads are on display in bubbling vats of electrical fluid (a motif which goes all the way back to the *Doom* series, where id Software's programmers mapped a photo of lead designer John Romero's head onto one of the monsters). This is confirmed by the uproarious sequence where we meet Alfred, Dr. Franklin's assistant, who evidently received his Ph.D. in the field of deadpan humor: "Thank God you're normal," he says, smack dab in the middle of the insane asylum, "Everybody else here seems to be out of their minds." Explaining that the zombies were created by a contaminant in the city water supply, he adds: "It's something that can bring anyone, alive or dead, to some intermediate state of half-life." *Half Life* is indeed one of the few games capable of engrossing players for hours on end, but Manke pays the ultimate compliment to the original, not by imitating but by transcending it.

The third episode of the series, *Rude Awakening*, presents an intriguing conundrum for the critic. Though unquestionably the most polished and well-plotted episode of them all, and boasting a number of sequences superior to the vast bulk of the commercial 3D games released in 2001, *Rude Awakening* does not have quite the concentrated energy of its two predecessors. This is not due to any aesthetic deficiency on Manke's part, but to the objective development of Manke's material, which drives irresistibly past the capacities of *Half Life*'s graphics engine. Manke had previously managed to disguise the weaknesses of this engine by the clever use of trains and tunnels, as well as superb monster design, placement and event scripting. In *Rude Awakening*, Manke aims at nothing less than the definitive sublation of the single-player and multi-player maps into a new form, or what we will term the melee map. Whereas single-player maps are inherently view-centric, i.e. place great emphasis on texture design, atmospherics and overall narrative continuity, multi-player maps are inherently motion-centric, i.e. emphasize overall map balance and continuous player movement through a gallery of interconnected rooms or spaces.

In retrospect, many of *Half Life*'s most enduring innovations, everywhere from game-scripting to the advanced artificial intelligence or "AI" of non-player-characters (that is, they react realistically to the actions of the player), represent the selective reappropriation of multi-player forms into a single-player narrative context. Manke took the next logical step, by endowing those multi-player forms with their corresponding content. His first and most counterintuitive move here is to replace the fundamental design trope of *Rest in Pieces*, namely the railroad tunnels linking crucial areas of the map, with a series of rock-hewn valleys and open-terrain maps. This makes impossible demands on *Half Life*'s graphics engine, but it is only by demanding the impossible that Manke transcends the possible.

The first great example of this is the opening cut-scene or tag of *Rude Awakening*, which portrays an aerial shot of Dr. Franklin's ghost escaping from an autumnal crypt, presumably to wreak further havoc on the world. The scene cuts to a static shot of a pack of unearthly beasts, huddled around a fire in an underground cave (one even snaps at us irritably). Each scene is keyed to a specific sound-effect: thunder roils in the background of the aerial shot, while the distant wail of a child is audible somewhere beyond the crackle of the cavern fire. This ingeniously rewrites the opening tag of *They Hunger I*, a cinematic tracking shot of the player's car moving through the countryside in the midst of a thunderstorm, into a reflexive parable of the multi-player genre: the aerial shot recalls to mind the invisible, roving spectators of a multi-player contest watching players respawn, while the static shot suggests the perspective of a

multi-player team member located at a team base camp, listening to the chatter of fellow team-members.

As it turns out, this entire sequence is merely a nightmare our player is having before waking up in the hospital, surrounded by realistic X-ray negatives and advanced medical equipment. The hospital facility features any number of delightful scripted sequences, ranging from a spine-tingling encounter with a zombie nurse (who cheerfully utters the single best line of *Rude Awakening*: “You’ll feed the little ones...”, i.e. the infant aliens) to a moment where players must refunction an X-ray machine into a weapon, to signature Manke touches such as the ringing telephone or the scan of Manke’s head in the chapel. No less striking are the old-fashioned radios scattered about the hospital, tuned to a station playing the bizarre, neo-fundamentalist ravings of a zombie preacher (the “zombie news network”, if you will), and strategically placed next to equally archaic typewriters – symbols of obsolete technologies of broadcasting and dissemination, disrupted or hijacked by the zombie plague.

What marks the hospital facility as Manke’s first full-fledged melee map, on the other hand, is the breath-taking balance between its textures (everything from spotless operating rooms to working X-ray equipment, and from the cellar crawl-space to an out-of-order elevator) and its architectural or spatial forms, which quote or cite almost every single hospital superstructure imaginable (admissions, billing, examining rooms, inpatient wards, physical plant, food services, stockrooms, chapel, maternity ward, etc.). By seamlessly integrating architectural function with textural form, Manke raises the tropes of local level design perfected by *Rest in Pieces* into fundamental principles of 3D game design.

Probably the easiest way to grasp this transformation is to think of the rock-valleys and open terrain sequences as the inversion of the outdoor desert sequences of *Half Life*, shorn of the mediating infrastructures of the Black Mesa Research Facility, such that Arizona’s desert sun is now upstaged by an icy moon. But whereas Black Mesa’s trademark symbol, the stylized silhouette of a mesa, hints at a specifically natural history, Manke employs its logical antipode, namely social history: this is the giant skull of a steer, stuck on a pole in one of the very first rock-valleys like some medieval herald. The steer-skull points to the transformation of the corporeal symbols of *Half Life* – everything from the grinning memento mori of the player’s own skull, to the Nihilanth’s Über-brain – into new informatic bodies, ranging from the ossuary of *Guess Who’s Coming to Dinner*, the skeleton-creatures of *Rest in Pieces*, and finally the undead bestiary of *Rude Awakening*.

One of the clearest examples of this is the X-ray of the steer-skull players glimpse in the hospital. While trudging through a rocky valley, players hear an unearthly cry, which turns out to be a steer being zombified. It is only much later that players are confronted with the actual monster. This is a remarkable allegory of informatic production, which retraces the production-cycle from design blueprint, to prototype copy, to an unseen but audible production-process (i.e. the whine of the laser-printer or beep of the fax-machine), and finally the autonomous information-commodity.

In fact, *Rude Awakening*’s monster-types are modeled on the neoliberalization of explicitly multinational institutions. In the case of the zombie nurses and doctors, this is clearly the privatization of Canada’s health care system, under attack by predatory pharmaceutical companies and privatization-mad Governments. The zombie train engineer refers to the privatization of the railways and transport systems, while the zombified animals and farmers highlight the onslaught of factory farming and Frankenfoods. Last but not least, the zombie troops clearly symbolize neoliberalism’s military and police agencies.

At the end of *Rude Awakening*, players must retrace their steps back through the same rock-valleys, farm-buildings and asylum corridors they passed through before. This puts enormous demands on the maps in question, simply because they must be playable in two directions instead of just one. That is, the monsters and obstacles must be difficult enough to compensate for the fact that the player has some knowledge of the terrain and will avoid the most obvious traps and ambushes, but not so difficult as to make the sequence frustrating. Once again, Manke's mapping skills rise to the challenge, by delivering an inexhaustible variety of modified textures, design variations, and scripted events – everything from realistic smoking rubble and ashes, to burnt-out walls which make the ruins of Black Mesa look positively tidy.

In so doing, Manke illuminates one of the fundamental design principles of the informatic culture, namely the equilibrium between the extended repetition of informatic forms and singular, unrepeatably design innovations. Just as the mirror and crab techniques of European musical counterpoint generated rhythmic variations out of invariant tonal structures, so too does Manke employ similarity to generate difference.

Significantly, Manke eschews the most obvious narrative solution here – throwing large numbers of low-level monsters at the player – in favor of tactical complexity. Open spaces are generally filled with movement-based monsters, that is to say packs of dogs or steers, while enclosed spaces are filled in with hitscan opponents, i.e. zombie troops which players must dodge or outwit. What makes this work is the precise configuration of the game-script with game-play. In order to defeat the Army helicopter, the player must learn to duck and snipe with a fixed machine-gun. To defeat the zombie steers, players must either turn the strength of the beasts into their weakness, by permitting them to knock you into the relative safety of a lake, or using creative vertical strategies against them. To defeat the zombie troops, players must use close angles, terrain features, and sniper tactics. Put another way, Manke sets the informatic body in motion towards informatic labor-time.

The first hint of this is the scan of Manke's own disembodied head, bubbling in the lab vat of *Rest in Pieces*. This seems at first glance to be a standard "Easter egg", the name given to the bonus sequences hidden away by programmers within a game, as a reward for especially diligent or clever players. However, we soon run into the Manke-model again, this time on the pulpit of the hospital chapel. The third time around, the Manke-model is now piloting a ferocious zombie farmer, capable of full movement and wielding a signature spade.²

This echoes the symbolic progression of the steer-skull, i.e. the trajectory from the informatic model to its off-screen assembly, and finally to its operational deployment or field-testing, only with two crucial differences. First, where the steer-skull operates with a specific set of textures, i.e. the X-ray, the rock-valley and the farmhouses, the Manke-model deploys corporealities. The lab tank is linked to the disembodied hand, the chapel is linked to the dissociated body-parts lying around the hospital, while the farmer is linked to fully-assembled zombie animals (i.e. zombies designed to grow *other* zombies).

What mediates between the steer-skull and the Manke-model, or more precisely, between the informatic commodity and informatic labor-time, is a new kind of informatic entity or agency. Somewhat surprisingly, this agency is *not* Dr. Franklin, i.e. the comprador mad scientist – a powerful enemy, but not the player's true nemesis. The first clue is revealed at the very beginning of *They Hunger I*, when the radio announcer tells the player that Sheriff Rockwood is running for an upcoming election. Somewhat later, we encounter the signature trademark of the "Rockwood Stud Cattle Co.", suggesting that the real comprador is Rockwood rather than Franklin. The final bit of evidence is delivered in the chilling cut-scene where the player is

captured by Rockwood for the third and final time, and hauled off in a cage by a zombie steer to what can only be described as a Zombie Party rally. As the player waits behind bars, Rockwood delivers a suitably demented speech to the assembled zombie troops, concluding with the Pattonesque flourish: “We hunger for *victory*”.

At this point, a paratrooper assault by human soldiers inadvertently springs the player from their prison. In terms of form, this scripted event is a clever refunctioning of *Half Life*'s helicopter soldiers, who shimmy down ropes. In terms of content, this is the reflexive self-critique of the neo-nationalism still latent in Manke's earlier maps, most notably *Saving Private Monkey*. The choice between a terrifying zombie neoliberalism and an equally nightmarish US military-industrialism is a false one: both must be resisted, simultaneously, if the player wishes to survive (this is underlined by a key moment at the railroad junction, where we learn of the military's plans for a scorched earth operation).

Most remarkable of all, Manke provides us with a model of what this resistance might look like, via the three bodies in captivity in the railroad junction. The first is an unclothed female zombie, which is not quite the reference to online porn that one might think. The second is a wounded civilian, whose dying words are, “I don't want to become one of those... those *things*” – a line we will decode in just a moment. The third and final body, or more precisely set of bodies, is a quotation of *Quake 2*'s meat-packing plants: a button inadvertently sends a group of town-dwellers, huddled on an assembly line like so many machine-parts, to their doom.

There is a logical progression here from the initial production of the (unclothed, i.e. texture-less) informatic body, to a neutralized informatic body (the texture-effect), and finally to the extended reproduction of informatic bodies (the scripted event or ensemble of textures). Putting all the pieces of the puzzle together, the steer-skull, the Manke-model, and the Rockwood-farm are the coded forms of the information commodity, informatic labor-time, and the multinational factory, respectively. Conversely, the player-character is transformed from a neo-national horror fiction writer turns into the multinational horror-fiction game designer.

This is confirmed by the remarkable cluster of mediatic references at the very end of *Rude Awakening*, grouped around the asylum's underground movie hall. This is both a witty pastiche of the horror movie, courtesy of the glittering posters of Frankenstein and Dracula, as well as a parody of the newsreel and WW II epics, something relayed by a film clip of Dr. Franklin ranting about “the greatest war in history”. Most significant of all is the moment when military zombies quite literally blast through the silver screen to attack you: this is the moment that Hollywood, or the cinematic arm of US military-industrialism, converges with zombie neoliberalism.

It is somehow fitting that Manke should refunction one of the central symbols of the US Empire at its zenith, namely the helicopter, into an unlikely symbol of the informatic resistance. What piques Manke's interest about the helicopter is its uniquely airmobile or birds-eye point of view, which provides the crucial narrative hinge between the two “boss” sequences at the end of *Rude Awakening*, i.e. the air-to-ground skirmish between the heliborne player and the cybernetically altered Dr. Franklin, and the final air-to-air struggle with a heliborne Sheriff Rockwood and various paratroopers.

What marks these as pure melee maps is their total mobilization of perspective. In the first sequence, the player must take moving sniper shots while the helicopter pitches and yaws. The second is organized around a series of cyclical shoot-outs with Rockwood's helicopter, as it orbits your own aircraft. To be sure, traces of the single-player and multi-player genres persist in both maps, e.g. the zombie on the watch-tower next to Dr. Franklin, or the health kit in the

cockpit, a trope borrowed from *Counterstrike*, the single most popular multi-player version of *Half Life*. Fittingly, Manke's epic ends not with a stereotypical landing or closing still photo, but with the promise of a new beginning. The final shot of the bullet-riddled helicopter, battered but unbowed, as it limps off into the radiant dawn, rewrites *Half Life*'s interstellar tramcar into the reflexive symbol of the *Half Life* engine itself – more than a little worse for wear, but just powerful enough to ferry us to the next level of the 3D videogame.

While Manke's helicopter pointed in the direction of a revolution in 3D engine design, the thing itself would be carried out by Zagreb-based Croteam. Rather than trying to replicate *Half Life*'s blend of horror and action registers, Croteam struck out in a new direction, by inventing the very first “melee game” based primarily on melee maps. The crucial innovation here was the creation of vast outdoor sequences, thickly strewn with advanced textures and swarming with hundreds of smoothly-animated opponents, resulting in colossal skirmishes unlike anything the videogame genre had seen before.

What made the melee game possible was the explosive growth of online or multi-player gaming and the rise of powerful console systems (Nintendo, the Playstation 2 and the X-box) designed specifically for 3D graphics. In many ways, the melee game is the first aesthetic form to cross the divide between the personal computer market and the console market. Rather than trying to create a graphics engine capable of performing every single processing function imaginable, Croteam focused on the specific features required for melee gaming – specifically, crowd-effects, outdoor environments, large-scale action, and 3D sound and particle effects.

What is most astonishing about *Serious Sam* is the fact that the game was produced by a group of programmers based in Zagreb, Croatia, a former principality of Yugoslavia turned independent nation-state. In fact, it is precisely Croteam's status as Eastern Europe's first blockbuster videogame exporter which endows *Serious Sam* with its unique geopolitical content. Even the name “Croteam” implies Croatia's extraordinary transformation from a Cold War semi-periphery into a high-tech export-platform economy, capable of producing world-class software.

Though the plot elements of *Serious Sam* may seem to be utterly stereotypical – e.g. alien invaders from outer space, battles waged not in the future, but in humanity's past, the obligatory muscle-bound hero, and even a *Doom*-style admixture of undead and cybernetic monsters, the game is anything but derivative. The opening sequence of the game shows Sam quoting a classic Dr. Seuss line, “Sam I am” while wielding a hilariously oversized chaingun. Croteam had the essential insight that the only way to transcend the 3D action game's inherent tendency to devolve into a cartoon is to *accentuate* this tendency, and thereby transform it into a new kind of content.

This is the genesis of the game's inventive and entertaining roster of monsters. The single most famous of these, which raised *Serious Sam* to the status of an instant classic, is the kamikaze – a literally headless soldier which homes in at the player's location, holding twin bombs designed to detonate upon arrival. The kamikazes are a clever quotation of Robert Minor's classic anti-war cartoon from 1916 in the *New Masses*, which shows a lieutenant at a recruiting station exclaiming, “The perfect soldier!” (the soldier, naked from the waist up, has massive shoulders – but no head). Instead of hands, however, the kamikazes have twin spherical bombs attached to their wrists.

This is a double-jointed reference to the bomb-throwing anarchists parodied by *Serious Sam*'s game logo (a ticking bomb, with a stylized frown across it), as well as the globular monsters of Nintendo's classic Mario Brothers games of the 1980s. But Croteam, in a stroke of genius, gave the kamikazes something no other monster-type had before: a three-dimensional

sound-effect. Undeterred by their lack of a mouth, they literally shout in the distance, which means players must literally use their ears in order to turn around and pick them off at a distance, before they get too close.

In fact, *Serious Sam* plays incessantly with the notion of heads and headlessness. Sam has a cybernetic implant in his skull, giving him a superhuman sense of aim, while many of the other monsters are headless, or literally carry their severed heads in one arm and fire weapons with the other. The cybernetic monsters and the were-bulls are essentially giant heads with vestigial bodies, and it's no accident that the one major monster-type which does have a recognizable head is correspondingly bodiless, namely the fleshless skeletons.³

What marks the were-bulls as a genuine advance over *They Hunger's* zombie steers is Croteam's creative use of game design. While the zombie steers cannot be dodged at all, and thus are ill-suited for ensemble attacks, the were-bulls have a tiny turning radius and cause a relatively small amount of damage when they hit the player. This makes dealing with an entire herd of the beasts enormously entertaining, simply because the player must constantly dodge one after another. It's also easy to use them as an improvised means of elevation, i.e. by jumping into their path the player can be knocked high up, onto a ceiling or roof – something especially useful in conjunction with “rocket jumping” (a technique invented by *Quake* players, where players use the back-blast of the rocket-launcher to jump higher than normal).

It is only when in the midst of a herd, surrounded by dust-clouds, the thunder of hooves, and furious bellows, that one begins to grasp the true aesthetic potential of the melee map. This is its capacity to portray an informatic space teeming with cybernetic bodies, the direct inversion of *Half Life's* cybernetic space (the Black Mesa lab) teeming with informatic bodies. Later in the game, Croteam will expand this space into the aerial dimension, by means of swarms of flying opponents which swoop down from the skies in vast packs. Such herds and swarms are the logical counterpart of the grandiose stadiums, temples and arenas of the game, which cite architectural motifs from all manner of preindustrial cultures (Egypt, Central America, a mythical Babylon and – appropriately enough – medieval Europe) with a gusto worthy of Disneyland.

Croteam also designed Sam's arsenal exclusively for the context of the melee game. The most prominent of these is a handheld cannon, which disgorges a giant bowling ball capable of rolling over entire crowds of enemies, bouncing off walls, and so forth. The second is a flamethrower capable of melting entire streams of enemies.

Croteam's emergence on the global stage bears intriguing parallels to the rise of several other Eastern European cultural superstars, most notably the trajectory of Krzysztof Kieslowski from a quirky Polish documentarist to one of the great EU filmmakers of the early 1990s, or Slavoj Zizek's trajectory from Slovenia's in-house dissident to the EU's greatest living cultural theorist. But whereas Poland and Slovenia integrated with the EU with comparative ease, Croatia had to pass through the purgatory of civil war, national revolution, ethnic slaughter and UN intervention.⁴ As a point of biographical fact, the members of Croteam experienced the breakup of Yugoslavia into its constituent nationalities in the early 1990s on the most personal level imaginable. Many of them served their mandatory term of military service in the Croatian national army, and thus had personal memories of the ferocious civil war between Croatian and Serbian guerilla forces in during 1993-95, as well as the UN's show-down with the Milosevic regime in 1998.

This history may explain the curious double narrative scission in *Serious Sam*, which decisively separates the game from its Northamerican analogues. In the first place, while Sam is

clearly modeled on the prototypical Northamerican action-adventure hero, Croteam carefully avoids any mention of Sam's national identity – suggesting that Sam is very much the Croatian version of the bemuscled strongman One in Caro and Jeunet's *City of Lost Children* (1995), i.e. the multinational action-hero (something confirmed by a delightful hillside sign in *Serious Sam 2*, which spells out “Crollywood”, as well as John J. Dick's terrific voice acting). Second, it turns out there are *two* sets of aliens in Croteam's mythical universe: the first are the enslaved minions of Mental, the alien warlord bent on destroying the Earth, while the second are the vanished species which built the structures Sam journeys through, as well as the spaceships which ferry him through space and time.

The solution to the mystery is revealed only at the end of the first *Serious Sam*, which features one of the most memorable final opponents ever created for the 3D game. The player must defeat a gigantic four-armed minotaur within a cube-shaped arena, which happens to be located inside an Egyptian pyramid (the pyramid is really an alien spaceport). To defeat the monster, the player must periodically turn on the transport machinery of the unknown, benevolent aliens, creating a transport-beam destructive to the monster, although harmless to the player. Once the monster is defeated, Sam rides the same transport-beam up to the spacecraft.

The last and most telling hint is the visual motif stamped on the walls of the arena: pseudo-Egyptian metallic “coins” – baroque but nonetheless unmistakable anagrams of the euro. This suggests Sam's epic journey is somehow tapping into the latent geopolitical unconscious of Croatia's accession process for membership in the EU. The contradiction can be explained by the fact that the EU was an economic superpower before it began to develop its corresponding political and cultural institutions. As it turns out, negotiations between the EU and Croatia on a framework for accession did not begin until 2000. While Slovenia became an EU member in 2004, Croatia is hoping to join in 2008 or 2010.

All this is confirmed by the dense thicket of references to the EU's indigeous consumer culture in the latter half of *Serious Sam 2*. These range from ancient castles to an incongruous Dutch windmill in the midst of a Swiss hamlet, all the way to Croteam's own reflexive signature, the crate-flying aliens who appear at the beginning and end of the episode. These latter are the Croatian equivalent of the late 1990s Bobble-head dolls, which feature bloated heads displaying the scanned faces of the Croteam members and shrunken, Serious Sam-style bodies. This Euroconsumerism will touch base with its corresponding Europolitics during the penultimate battle outside of the Grand Cathedral: a series of eye-popping meteor swarms rain down from the storm-filled skies, clobbering Mental's assembled minions and aiding Sam to wear down the masses of monsters. When the sky clears, Sam enters the courtyard to battle a floating magical summoner, whose defeat occasions a wild round of applause – a stunning two-part allegory, indeed, of the EU/NATO intervention in Bosnia and the subsequent overthrow of the Milosevic regime.

It is entirely fitting that *Serious Sam 2* should end with a quotation of the rocket launch sequence of Patrick McGoohan's classic video series, *The Prisoner* (1967). But where McGoohan reappropriated the leading symbol of the Cold War space programs from the standpoint of the global uprising of 1968, Croteam's achievement was to document the launch of the Starship Europa: the first multinational democracy in human history, an intricate webwork of Western European avionics, Central European engineering and Eastern European programming, blazing into the 21st century to battle the fearsome monsters of neo-national ethnic fundamentalism and neoliberal financial fundamentalism alike.

Endnotes

1. “But the reality of chaos is not the entire reality. In such appears the law according to which exchange-society reproduces itself blindly, over the heads of human beings. It automatically includes the continual growth of the power of the administrators over others. The world is chaotic for the victims of the law of value and concentration. It is not, however, chaotic ‘in itself’. This is only how it appears to the individual who is relentlessly squeezed by such. The forces which make its world chaotic have already taken the reorganization of chaos in hand, because it is *their* world. Chaos is the function of cosmos, le désordre avant l’ordre [French: the disorder before order]. Chaos and system belong together in society as much as in philosophy. The world of values conceived of by Expressionistic chaos bears traits of the newly dawning domination.” Theodor Adorno. *Philosophie der Neueren Musik*. Gesammelten Schriften: 12. (My own translation). Frankfurt am Main: Suhrkamp Verlag, 1975 (49-50).
2. There is a delightful informatic pun here which speaks volumes about the subversive potential of the 3D game: Manke was not employed by a game or software company when he wrote the *They Hunger* series. Instead, he made a living by doing construction work in Kamloops. The photo he posted of himself while on the job, available on his website, is a dead ringer for his very own zombie-model. Web: <http://www.planethalflife.com/manke>
3. This is also the secret of *Serious Sam*’s ultimate villain, a mysterious entity known only as “Mental”. The game offers four standard modes of difficulty, from “Tourist” (absolute beginner) up to the hardest of all, the appropriately named “Serious”. Upon defeating this last difficulty mode – something possible for most players only in multi-player mode, though there are the occasional 3D Olympians who can defeat this level by themselves – a bonus difficulty level appears, called “Mental”, which is essentially “Serious” with the added twist that the monsters are partly invisible. Put another way, *Serious Sam* is one of the few games with the sheer gumption to reflexively cite its own game-play as its villain: Mental is the shadow of information capitalism itself – literally, the mental game-within-the-game.
4. Eastern Europe’s transition from Second World autarky to aspiring members of the EU (Poland, the Czech Republic, Slovenia and Hungary all plan to join in 2004, while several others are on track to join somewhere between 2005 and 2008) was mediated by a set of three economic phases or transitions, as opposed to a single political event: first, the savage neoliberalization in the 1991-94 period (what Boris Kagarlitsky memorably described as “market Stalinism”), which sparked a catastrophic economic depression. Second, a gradual recovery process, characterized by the total rejection of neoliberalism and market orthodoxy by Eastern European citizens and their governments, and the construction of EU-style social democratic states, with extensive aid and managerial assistance from the European Union (the European Investment Bank, for example, is the largest single investor in Eastern Europe, accounting for somewhere between 5-10% of the region’s investment spending during 1993-2002). The last stage was industrial take-off, as Eastern European countries began to export high-tech goods to capacious EU markets, replicating the export boom of Taiwan, South Korea and the Chinese coastal regions.

Chapter 7

Stargate Helsinki

“The principle of the vision, division, and mode (religious, philosophical, juridical, scientific, artistic, etc.) of knowledge at work in a field, in association with a specific form of expression, can only be comprehended and understood in relation to the specific juridics [légalité] of the field as a microcosm. For example, what is called philosophically the “language-game” can only be described and explicated in terms of its relationship with the philosophical field as a “form of life”, inside of which it circulates. The thought-structures of the philosopher, the writer, the artist or the expert, hence the limits imposed on them as thinkable or unthinkable, are always to some extent the dependents of the structures of their fields, and thus of the history of the constitutive positions of the field and of the dispositions which they favor. The epistemic unconscious is the history of the field.” Pierre Bourdieu. *Pascalian Meditations*. (My own translation). Éditions du Seuil, 1997 (119-120).

Adorno observed long ago the truth-content of a work of art does not consist of any presumed identity between the work’s aesthetic form and its historical content, but in their radical contradiction: each is the indispensable corrective on the other. If a given aesthetic form overshoots its historical moment, the result degenerates into mere advertising, apologetics for a totality in which every local element of the total system changes, precisely to ensure that nothing changes globally. Conversely, if the work of art simply presents concepts rather than crystallizing these out of its aesthetic raw materials, it falls into the trap of all moralizing or badly political art – i.e. telling, instead of showing.

What marks Remedy’s *Max Payne* as the worthy successor of Hideaki Anno’s *Neon Genesis: Evangelion* (1995) and the Wachowski’s *The Matrix* (1999) is not merely its status as the breakthrough text of the EU’s blossoming information culture, its power-packed storyline, or even its spine-tingling admixture of design and game-play innovations. By setting the micropolitical forms of the late 1990s information culture in motion towards their geopolitical content, Remedy transformed an eclectic admixture of Finnish programming, US scriptwriting, Japanese console gaming and Hong Kong video into one of the touchstones of the multinational era.

In essence, Remedy did for the 3D action game what Nokia did for the cellphone, and what DoCoMo’s i-mode did for text-messaging – that is, transformed an obscure niche market into the nodal point (to borrow William Gibson’s term) of a vast collective transformation. This is *not* to argue that Nokia and DoCoMo have suddenly stopped being the giant, predatory multinationals they had no choice but to become, in order to survive and thrive in a ferocious and unrelenting marketplace, but merely to underline one of the central contradictions of information capitalism: the more the total system really does become total, the less that any given owner or corporate entity can objectively control the processes of that system, and the more necessary it is to rein in and recontain the fearsome violence of the marketplace via governments, regulatory agencies, and plebian cultural spaces.

As Bourdieu tirelessly pointed out, these non-market agencies are neither innocent bystanders nor obsequious perpetrators of the status quo. They are contested sites, littered with internal and external contradictions, and contested by a wide variety of class struggles. *Max Payne* marks the point at which the objective contradictions of thirty years of marketization, austerity and privatization recoil into a subjective political and cultural resistance – or put more

concretely still, the moment when the global proletariat spawned by three decades of british neoliberalism begins to forge its own institutions and modes of class struggle.

In retrospect, the media culture of the late 1990s seethed with the revelatory signs and corporealities of that proletariat. Where *Half Life*'s radicalized interstellar guerilla, Gordon Freeman, symbolized the rebellion of the skilled programmers, scientists and telecom-workers of the post-Cold War era, the doppelganger-dialectics staged by David Fincher's *Fight Club* (1999) narrated the uprising of the transport and retail workers of the service economy. Meanwhile, the Evangelions of Hideaki Anno's *Neon Genesis: Evangelion* (1995) and the Forest Spirit of Hayao Miyazaki's *Princess Mononoke* (1997) did something similar vis-a-vis the East Asian proletariat. Such corporealities are far more than just the objective reaction-formation to the emergence of the electronic commons, that is to say, informatic bodies which represent a certain class fraction or profession within the electronic body politic. Rather, they are unimaginably powerful engines of a multinational class praxis, with no real precedent in the historical record.

Most of all, these bodies are multinational through and through. The epiphany of Gibson's *Neuromancer*, when Case accelerates the Kuang virus program through the T-A ice, as well as the comparable moment in *The Matrix* when Neo learns to *read* the financialized bit-streams of neoliberalism, both quote a specifically North American urban space. Yet Remedy reappropriated not one or two, but *three* multinational urban spaces, all at once. The first is the East Asian action thriller (Hong Kong cinema plus Japanese manga and anime); the second is the theater and film culture of the EU; and the third is the architecture of that prototypical global city, New York.

In effect, Remedy rewrote the urban matrix of New York City into an allegory of the food chain of global capitalism. This is already evident in the game's bravura opening scene, which begins with the airmobile perspective of a police helicopter racing from the Statue of Liberty towards the New York skyline, and ends with a zoom close-up of the title character, undercover officer Max Payne, who is wearing his signature trench coat high atop a corporate office building. But what may seem to be a routine citation of the generic action thriller is endowed, upon closer inspection, with two extraordinary moments of narrative retroactivity.

The first and most obvious one is the spectral presence of the Twin Towers themselves, a recurrent motif throughout the game (although censored in the console versions of *Max Payne*).¹ Given that the original game was released for the personal computer market in April 2001, long before the ghastly events of September, the first assumption which needs to be dispensed with here is the thought that *Max Payne* has anything at all to do with the world's first multinational catastrophe. The Twin Towers are not functional elements of the game, but rather one of a number of prominent New York landmarks, ranging from the Statue of Liberty to the Brooklyn Bridge, and from historical paintings of New York to snapshots of Babe Ruth, which Remedy transformed into miniaturized wall-textures. That is, Remedy transformed a set of cinematic exteriors or panoramic shots into informatic interiors.

There is a second and even more powerful form of retroactivity at work here, due to the fact that this opening scene is really a closing scene, marking the moment when the narrative proper has concluded. The telling of *Max Payne*, just like the Hegelian leap from Kant's post-empirical noumena to the universal Spirit, is a narrative which can only be *retold*. The secret of Max's opening line ("They were all dead...") is that the entire narrative is a veritable Hegelian ghost story.² That is, the entire game takes place somewhere in Max's mind, as a kind of extended recapitulation between the final gunshot and the release of the trigger, whereupon Max's ghosts finally release him from his haunting. This aesthetic of temporal framing is more

than just the essential narrative motor of *Max Payne*, it is also the source of the deservedly famous category of “bullet-time” – without question, the single most radical innovation in 3D game mechanics since the arrival of true vertical movement in the mid-1990s.

The idea of bullet-time is deceptively simple. At the press of a button, time literally slows down for the onscreen action but not for the player’s target icon, thus enabling players to dodge, aim and shoot with superhuman accuracy. What prevents bullet-time from being a single-shot stunt is the ensemble of effects Remedy constructed around the device. Bullet-time triggers a slow-motion peal of thunder, suggesting the slow-motion reverberation of a heartbeat, while flying debris, bullet-trails and character movements are all rendered with astonishing fluidity and realism. One of Remedy’s most subtle but effective design choices was to endow Max with realistic reaction-speeds, i.e. it takes a minute but appreciable amount of time to point and fire, duck and roll, or perform any other action. The result is not the disconcerting lag one might have expected, but a seamless fusion of game action and player reaction – the momentous convergence of the 3D game and the framing and zoom techniques of John Woo’s Hong Kong thrillers.

Two specific reappropriations of the Woo thrillers are worth mentioning here. The first is the slow-motion video pan or mobile close-up, something Woo deploys in the context of domestic spaces or interiors – e.g. the famous scene in *The Killer* where the dual protagonists hold each other at gunpoint in the apartment. Remedy will transform this spatial motif into a temporal one, by parlaying cinematic space into informatic time. The game’s video pans are triggered by the death-sequences of the player-character or various villains, i.e. the camera slowly rotates around Max or the villain, as one or the other falls lifeless to the ground. The second Woo citation is the high-velocity, slow-motion pan, designed to zoom through a series of informatic spaces (this is the genesis of the factory sequences of *Hard-Boiled*, where the kinetic movement of cars and motorcycles are transformed into the moving target-icons of the 3D action game). Remedy’s version of this motif is the slow motion zoom triggered by Max’s sniper shots, which tracks the rifle bullet as it careens towards its target.³

Remedy also borrowed freely from the design ethos of the console videogames of the 1980s and 1990s, as well as the theatrical and mediatic postmodernisms of the Central European media culture – in particular, Heiner Müller’s media-savvy Eurotheater and Krzysztof Kieslowski’s multinational video productions. What Remedy took to heart from Nintendo and Sony was the crucial role of game balance, egalitarian design and narrative content over technological performance or graphical form.⁴ Remedy’s debt to the Central European cultural field, on the other hand, is considerably more complicated, due to the structural disjunction between the heavily state-subsidized venues of European theater and mass media, and a fledgling videogame culture which barely existed in mid-1990s Finland.

What the Remedy team had in common with Müller and Kieslowski was an extraordinary talent for collective organization. Müller, for example, worked closely with the Berliner Ensemble, and participated in co-productions with dramatists and actors from around the world, while Kieslowski’s mature works were produced with the assistance of scriptwriter Krzysztof Piesiewicz and composer Zbigniew Preisler. Similarly, Remedy assembled some of the finest programmers, designers, musicians and voice actors available – something facilitated by the Remedy team’s historic roots in Finland’s “demo scene” of the early 1990s, wherein groups of young programmers would gather for impromptu competitions between rival graphical demonstration programs or demos.⁵

Such linkages are most evident in *Max Payne*’s extraordinary sound-track, everywhere

from the close-up of a ringing telephone in the game's prologue – a direct quotation of the artful phone-shots in Kieslowski's *The Decalogue* – as well as the dynamite theme music of the game. Composed by Finnish recording artists Kärtsy Hatakka and Kimmo Kajasto, the theme consists of a single, memorable piano melody, backed by an orchestral track reminiscent of all the classic Mafia thrillers, overlaid with an ominous heartbeat pulsing in the background and a bass motif cycling around a single half-step transition. This bass line is a direct quotation of mid-1990s hip hop artist Kool Keith's masterpiece *Dr. Octagon* (1996), and one could argue that *Max Payne* is following in the footsteps of its path-breaking forerunner, *Half Life*, which similarly cited this theme.

All of this story-telling potential would have gone for naught, however, if there had not been a single center of narrative gravity capable of weaving the various strands of the game into a seamless web, like an informatic Norn – the indispensable role played by fantasy and sci-fi writer Marc Laidlaw in Valve's *Half Life*, and by mapper Neil Manke in *They Hunger*. As it turns out, the driving force behind Max Payne's dazzling script and storyline was Remedy's lead game designer and writer Sam Lake, the pen name of Sami Järvi. Lake made a number of key design decisions, ranging from the extensive use of voice-overs to the sophisticated plot, and from the quotations from John Woo and *The Matrix* all the way to the game's extraordinary voice acting. In particular, James McCaffrey's brilliant rendition of Max casts just the right amount of noir shadow on an essentially Information Age protagonist, while Dominic Hawksley's rendition of Vladimir, the Russian mobster, all but steals the show. Numerous interviews with Remedy team members confirm that even the smallest details of the game bear Lake's imprint, e.g. Max's personal circle of friends and family are based on snapshots of Lake's real-life associates, while Remedy programmers were the models for the game's villains (as if to drive the point home, Lake's real-life countenance is the model for Max's personal features).

Like Manke's *They Hunger* series, Lake's storyline is structured into three parts, each of which corresponds to a stratum of the global economy. The first section, *The American Dream*, takes place in subways, sewer tunnels, and squalid hotels, or the realm of primitive global accumulation. The second, *A Cold Day in Hell*, features dockside warehouses, tanker ships and Mafia mansions, or spaces of global distribution. The third, *A Bit Closer to Heaven*, takes place in research labs, manufacturing plants and corporate offices – that is to say, spaces of global production. In addition to a specialized architecture and cast of villains, each section is outfitted with a specific set of miniaturized texture-insets, or what we will term “wall-pics”, which simulate posters, billboards, paintings and other items throughout the game. Such pics have long been employed as texture elements, and occasionally as inside references to game designers (e.g. the “missing persons” posters posted throughout the game are snapshots of Remedy team members).

What Remedy did which was completely new, however, was to endow the pic with its reflexive or informatic content, thereby transforming the pic from a mere decoration into an autonomous element of game design. In *The American Dream*, one pic shows Avenger-brand handguns against the resplendent background of a US flag (the byline reads, “America's Avenger: For the pay-back time!”) – the more or less obvious recuperation of the Hollywood crime thriller from the perspective of Remedy's bullet-time. The signature pic of the Aesir Corporation, on the other hand, depicts a fog-wreathed lower Manhattan skyline with the byline “Aesir: A Bit Closer to Heaven” suggestively stenciled above the Twin Towers. This is the reappropriation of the opening cinematic sequence of the game, namely the extended moving shot which starts from street-level, climbs up the sheer face of the skyscraper, and resolves onto

a close-up of Max Payne – or what amounts to the logical inversion of the “sniper shot” typical of most 3D action games.

By contrast, the pics of the fictional Captain Baseballbatboy comic strip refer not to the comic strip culture per se, but back to the scanned images of Babe Ruth, bat in hand, found in the scattered newspapers lying on the ground – a citation of the sports videogame. More subtly, the pics for “Kong’s Whiskey” refer to the King Kong epics, as well as Nintendo’s Mario classics. The pic in question portrays a composite shot of two halves of a face, human and ape, yet it is only somewhat later in the game that we realize that the person in question is a daemonically grinning version of Max Payne himself, the first hint of what will become a powerful identity-politics.

The one pic which does not seem to have any direct connection to the videogame culture, namely Choir Communications, is the exception which proves the rule. The byline on the pic reads: “Hear the voice of the angels... Choir Communications” and shows half of the face of a woman, her hair streaming behind her, against a sunny blue sky. The theological note sounded here is not accidental, but counterpoints the Norse mythological symbols found elsewhere in the storyline. The Aesir Corporation, for example, is an offhand reference to the “Aesir”, the collectivity of the Norse gods, while Odin, the one-eyed father of the Gods who reputedly sacrificed an eye in order to drink of the well of wisdom, returns in the form of one-eyed Alfred Woden, a mysterious person who secretly assists Max’s one-man assault on the Aesir Corporation (“Woden” is, incidentally, the exact translation of “Odin” into Old English). The pic’s reference to a collective spoken voice and the tell-tale single eye is, in effect, the gendered inversion of Odin, suggesting that Choir Communications is a scansion of the Nokia Corporation.

Tempting as it is to read this pic as a neo-national parable of beneficent European high-tech professionals facing off against evil Wall Street monopolists, the reality is a bit more complicated. For one thing, telecom networks and cellphones play a surprisingly minimal role in the storyline. Remedy relies on the deliberately low-tech storyboard panels of the graphic novel, as opposed to the nanotech network of Kojima’s *Metal Gear Solid 2*. For another, the woman’s face in the Choir pic is blandly neutral, referring neither to the iconic figure of Max’s wife, Michelle, who was murdered by drug-crazed thugs, nor to Nicole Horne, the villainous head of the Aesir Corporation and Max’s ultimate foe, nor even to the bit character of Mona Sax, the femme fatale of the storyline. As it turns out, the real significance of the pic is not so much characterological as meteorological. This is its reference to a sunny blue sky, a narrative register briefly cited in Max’s flashback to his halcyon days in New Jersey with his family, before being negated by the fictionalized three-day blizzard which overwhelms New York.

In any other context, this blizzard would be gratuitous in the extreme. Given the particular narrative demands of *Max Payne*, however, the snowstorm is a stunningly brilliant design decision, for two main reasons. First of all, the inclement weather allowed Remedy to keep innocent bystanders out of the cross-fire between Max and his opponents, and to burnish the game’s photo-realistic textures without having to worry about complex crowd scenes or moving vehicles. Second, and more importantly, the snowstorm transforms the desolate industrial infrastructures of New York into objects of extraordinary beauty. The masses of individual snowflakes, whirling out of the darkened sky, backlit by dock lights, skyscrapers and street lamps, perfectly complement the bullet-trails, demolished surfaces, and ricochet-effects of the action sequences, forming a veritable natural history of the 3D texture.

The vectors of social history and natural history converge in the mysterious graffiti tag

revealed by the prologue, the spray-painted emblem of a noxious designer drug known as “Valkyr” (pronounced “val-keer”) or simply “V”, which turns out to be the site of the most powerful retroactivity of them all. The emblem depicts a cartoon “V” with a syringe rising up out of the crook of the letter. During the first of the game’s three extraordinary prologues, Max delivers this tremendous line:

Something ugly had been tattooed on the wall, a map of things to come. It was a poison syringe, a magic tag full of diabolical meanings.²

Max’s comment names the corporeal register of the tattoo, the spatial one of the map, and the mass-cultural one of the graffiti tag, while the wall-pic in question delivers a complex, multifaceted reference to Norse mythos (the valkyries who resuscitated slain warriors), the pharmaceutical industry (visually, the symbol comes close to “IV”), as well as the “V” sign for victory, the unofficial symbol of the Allies during WW II.

This immediately raises the question as to why these particular neo-national tropes – beneficent symbols of the mythology and technology of healing bodies, as well as the war effort against Fascism – were refunctioned into such a dire symbol of negativity. At least part of the reason has to do with the violent disruption of the domestic space of the Payne family, located in the New Jersey suburbs. Max’s stinging retrospective one-liner on this event – “Everything ripped apart in a New York minute” – comes very close indeed to diagnosing what might be termed the neoliberalization of temporality by the Wall Street Bubble.

In fact, the extermination of Payne’s family is just the first of several incidents in which a quasi-national institution, trope or character is destroyed by a malevolent external force. For example, Max’s partner and friend at the DEA, Alex, is murdered by a corrupt cop. Later, a shadowy urban elite called the Inner Circle ends up being liquidated in the crossfire between Woden and Horne. Even the Punchinello family mobsters, including Mona Sax, turn out to be mere pawns in a larger power-struggle, while the institution of the NY police department is hobbled by internal corruption and powerless to do more than document the spiraling body-count.

What differentiates Remedy’s tale of revenge and derring-do from the Bond blockbusters of the 1960s, the paranoid thrillers of the 1970s such as *Three Days of the Condor*, or even the Hollywood blockbusters of the 1980s (e.g. Cameron’s *The Terminator* and *Aliens*), is the fact that Lake’s script dares to *name* the singular entity responsible for this web of deceit, destruction and mayhem. This is the multinational Aesir Corporation, whose line of business, precisely because it is left unstated, acquires the unsettling ubiquity of the nameless article produced at Woollett in Henry James’ modernist classic, *The Ambassadors*.

One of the most remarkable features of *Max Payne* is the emergence of a well-nigh Jamesian register of narrative density, wherein the wall-pics begin to acquire an autonomous spatial density all their own, everywhere from the libraries of the Punchinello mansion to the data-files of the Deep Six, and from the file cabinets of the Inner Circle to the databanks of the Aesir corporation. This is closely connected to Max’s belated discovery that his wife, who worked at the district attorney’s office, was killed for accidentally uncovering information damaging to Aesir. The grisly fate of Max’s family is thus no mere incidental plot device or melodramatic flourish, but contains the key the entire narrative, a key which we still need to identify and decode.

For now, however, it’s worth emphasizing that one of the very first scenes of *Max Payne* is precisely where *The Matrix* ended, i.e. the subway station where Neo fights Agent Smith to a

draw.⁶ But where the Wachowskis set the materials of 1940s film noir in motion towards Information Age science fiction, Remedy moved in precisely the opposite direction: the videoscreens of the subway control station, the teeth-rattling underground explosion (a *Quake* reference), as well as the inspection car sequence (a reference to *Half Life*'s tramcar), all converge in that quintessential noir trope, the bank heist gone awry. This is all the more surprising considering that Remedys' other main source of mass-cultural forms is the 1980s. These range from Candy Dawn's videotape porn to *Lords and Ladies*, the parody of PBS' *Masterpiece Theater*, and from Ragna Rock's rock-and-roll sound stage, replete with a drum set and electric guitar, to the passing references to REM ("It's the end of the world as we know it – and I don't feel fine", says one of the junkies). There is even a clever homage to Nintendo's classic console games, in the form of Luigi's Laundry (Luigi was one of the Mario Brothers).

Interestingly, these 1980s forms are often punctuated with early 1990s content. For example, the secret password at the laundry is "John Woo," the literal and figurative password to the Nintendo underground, while Max's superb throwaway lines do something similar ("Gognitti bailed. I made like Chow Yun Fat").⁷ This puzzling asynchrony is a deliberate strategy on Lake's part to push beyond or otherwise transcend the forms of Northamerican postmodernism. Whereas *The American Dream* brackets a range of mass-cultural registers extending from the 1940s all the way to the early 1990s, the second and third parts of the game fuse a range of 1990s narratives (among other things, the Japanese console videogame, the melee map, and Central Europe's own unique strategy of export-platform industrialization) into one of the first great narratives of Euroindustrialism. The first hint of this is relayed by Ragna Rock, the fortress of the game's first boss villain, Jack Lupino:

Ragna Rock was as inviting as a headache, flickering and flashing to a machine gun beat. The belly of the nightclub was a Gothic theme park that began with bondage games and led to the nasty stuff from there... as subtle with its dark message as a cop-killer bullet. Like father, like son. Just like Jack Lupino.⁸

The club's name refers to "Ragnarok", the twilight of the Norse gods, a liturgical turn which is reconfirmed by a dense network of mythological and theological references, ranging from stacks of books on the occult to the building's architectural status as an abandoned church, all the way to Lupino's demented pastiche of any number of off-the-shelf apocalypses. Ragna Rock contains, among other things, a live sound stage, dramatic stage sets, a disco, and even an unmistakable *Quake* reference (the bodies scattered around Lupino's den, plus the pool of blood which triggers the final battle). Lupino also gets some of the best lines of any of the villains, some of which approach the level of a Heiner Müller sound-bite ("I'm Mr. Beast, the big bad Fenris wolf. I'm the end-of-the-world-man, wearing the flesh of fallen angels.")⁹ The entire sequence reads like the realization of a sparkling sequence in Müller's play *Life of Gundling Lessing's Sleep Dream Cry* (1977), whose mysterious stage directions are an uncanny anticipation of the 3D game: "Shriek. Black angels populate the audience-chamber and fall silently on the theater-goers."¹⁰

It is extremely significant that Lake counterpoints the graphic horrors of Lupino's chamber of doom against Payne's thoroughly postmodern relativism ("Everything was subjective. There were only personal apocalypses. Nothing is a cliché when it's happening to you.")¹¹ The chilling yet irresistible conclusion is that Ragna Rock is not really the rotten core at the heart of the Big Apple, as Max says to himself at one point, but is located outside of the space-time of New York City altogether. It is the literal and figurative end of the American dream, its terminus in what the US consumer culture long ago dubbed the Hotel California.

This is confirmed by a screenshot of the Twin Towers which opens the second section of the game, the reprise of the opening shot of lower Manhattan and the wall-pics of the Aesir corporation, and the first citation of a specifically multinational architecture.

The Trade Center is the key backdrop for one of the game's most brilliant narrative innovations. Instead of segueing into a stereotypical noir subplot (the absent narrative slot of Mona Sax), we tumble instead into an Alice-in-Wonderland dream-sequence. Max's personal nightmare turns out to be indistinguishable from our own shock at entering the post-American space of the 21st century.

What is most extraordinary about this prologue is that Lake dispenses with the outlandish monsters and unbelievable plot twists of the horror genre, choosing instead to transform the materials of the 3D action game into a new kind of narrative material. First, player movements are drastically slowed down during the dream, creating the effect of a continuous bullet-time. Second, a real-time perspective shift occurs midway in the hallway – the camera position rises slightly, while Max's distance-perspective lengthens, transforming a routine corridor crawl into an eerie journey into the unknown. Third, the textures we analyzed previously as variants of multinational form now begin to generate their own autonomous content.

From the standpoint of form, *Max Payne's* dream-sequences are best compared to Case's flatline episodes in William Gibson's *Neuromancer* as well as Shinji Ikari's equally striking dream-meditations in Hideaki Anno's *Neon Genesis Evangelion*. Just as Gibson and Anno sublated the science fiction novel and the Japanese mecha (i.e. robot) anime series, respectively, into multinational forms, Lake's storyline does something similar with the materials of the videogame culture. That is, whereas bullet-time integrated the disparate realms of first-person and third-person gameplay, Max's "dream-time" does something similar vis-à-vis the first-person and third-person viewing perspectives of the 3D action game.

The dream-sequence begins by quoting from the prologue to the game, namely Max's ill-fated arrival at his New Jersey home. But where the original prologue featured a ringing telephone, this version displays a door magically barred by wooden planks, while the ensuing gun battle has been replaced by an endless corridor. The blue skies we glimpsed briefly in the Choir Communications wall-pics return here as the corridor wall-paper (the same wallpaper, it should be noted, found in the bedroom of Max's baby daughter). The corridor eventually terminates in a vast darkened space, devoid of buildings or scenery of any kind, lit only by a glowing red maze of pathways somehow reminiscent of giant neurons or veins. In the background, a sparse, effective sound-track reverberates with simple echo-effects and voices, while the lyrical plaint of a child ("Somewhere, the baby was crying", Max says to himself) provides an eerie backdrop for the unearthly red snowflakes falling from the sky, like the ashes of an extraterrestrial holocaust.

The reference to red snow can be traced back to the moment in Heiner Müller's play *Life of Gundling*, when the young Frederick II utters the line "Red snow" in the midst of a ghastly battle, revealing a rare flash of humanity in a human being who has been transformed into a monster of the Enlightenment.¹² Given the crucial importance of the blizzard in Lake's storyline, this suggests that the red snowfall is the internalized or social-historical counterpart to the externalized, natural-historical blizzard immobilizing New York city.

This is confirmed by an intriguing cut-scene where the children's blocks in the baby's bedroom slowly tumble in the air, each landing with a peal of thunder, eventually spelling out "D3AD" – a double-edged reference to the ghost story, as if a child's spirit is attempting to spell out the word "dead", as well as to the technology which brings unliving data to a semblance of

life (the 3D game). If the informatic body is data made flesh, then the blocks are the alphanumeric grammar of the resurrection of this flesh. To read the blocks is tantamount to raising the dead. Block-reading has its spatial counterpart in the maze-jumping required in the next scene. To simply leap into the void is fatal. Survival depends on mastering the 3D-patterns of the glowing red maze, i.e. players must learn to jump and move in dream-time as easily as bullet-time.

The actual transition to the multinational era, on the other hand, occurs only later, when Max comes to his senses and runs into the Russian mobster, Vladimir. The result is a sequence so marvelous that it deserves full transcription:

Max: *internal monologue*: “I spotted the tail as soon as I left the hotel. A big black Mercedes. I had seen the car before. That time it had heralded impressive explosions. Vladimir was back.”

Vladimir: “Bang! You’re dead, Max Payne.” *Shot of Vladimir, pointing his finger like a gun, as he gets out of car.*

Max: *internal monologue*: “I might have laughed, if I remembered how.” *Spoken*: “What’s this supposed to be? Cops and robbers? Look, you want something with me, get in line.”

Vladimir: “Peace man, relax. You know, you are a real news item? ‘Armed and dangerous.’ I’m going to make you an offer you can’t refuse.” *Bursts out laughing at his own line.* “I’ve always wanted to say that.”

Max: “It’s a bum rap, I’ve been framed.”

Vladimir: “Well, that’s a moot point. Whatever you did or did not do, I’m sure you had a good reason for doing it. Want to hear me out?”

Max: “I’m listening.”

Cut to Title of Chapter 2: An Offer You Can’t Refuse

Vladimir: “Punchinello messing with V is bad for business all around. But that’s not all. There is this guy, Boris Dime, used to pull jobs for me. He’s the captain of the cargo ship Charon. Now the bastard turncoat has gone over to the other side, Punchinello’s. The ship’s loaded with hi-res hardware, guns, my business. If Punchinello gets hold of that cargo, he’s won and I have lost, and you’ll have your work cut out for you. If you want to get to Punchinello, you will need heavy duty persuaders... I’m just the man to get them for you. Change the ship back under my flag, maybe pop two in the traitor Dime’s head while you’re at it... You’ll get enough guns to start the apocalypse. You in or out?”

Max: “Let’s get this show on the road.” *Internal monologue*: “Vladimir was one of those old-time bad guys with honor and morals, which made him almost one of the good guys. None of us was a saint.”

Cut to Title of Chapter 3: With Rats and Oily Water.

Max’s monologue continues: “The Brooklyn riverfront was a maze of rusty containers, sharp-boned cranes looking up from the snowstorm. On a night like this you couldn’t help but think of the dark army of dead men, sleeping with the fishes, cement shoes in line. No minotaur lurked in this labyrinth, but somewhere out there, on the clanking deck of his cargo freighter, the skipper of the Charon was waiting, like the ferryman of the river Styx.”¹³

This complex bricolage of classical European mythology, US film noir and the multinational crime thrillers of John Woo has its counterpart in a no less diverse array of multinational symbols, ranging from Vladimir’s clever pun on “hi-res” (the term refers to “high resolution”, a reference to 1980s computer screens) to the visual motifs of the cargo cranes, warehouses and port facilities of the Brooklyn waterfront (icons of global trade), all the way to Vladimir himself, who becomes an extraordinarily sympathetic character thanks to Dominic Hawksley’s superb voice acting. Lake took an enormous aesthetic risk with this character, due to Finland’s

centuries-old struggle for national independence vis-à-vis Czarist Russia and later the Soviet Union: Finland escaped Stalin's annexation of the Baltic states in the 1930s thanks only to its ferocious resistance to the Red Army in the 1940 Winter War, and the Nazi invasion of the Soviet Union in 1941.

What is at issue in *Max Payne* is not Finland's WW II prehistory, however, but its EU post-history. While Vladimir is identified with his signature black Mercedes, that premier Central European export-commodity and favored transport vehicle of Eastern Europe's commercial elites, the trope of the Russian gangster is displaced elsewhere, onto the bit character of Boris Dime. This is a subtle but unmistakable reference to the geopolitical transition from Boris Yeltsin's financial oligarchs to Vladimir Putin's petro-developmental state. This was hinted at in an earlier cut-scene in *The American Dream*, where Vladimir's driver inadvertently causes an oil rig to crash and burn in spectacular fashion, and confirmed in the next chapter, where Max has to escape the flames of Punchinello's booby-trapped restaurant. Running from successive explosions, Max delivers these great lines:

Punchinello was burning to get me. The feeling was mutual. He wanted to put out my flames with gasoline.

The mobsters had been guarding the real treasure – the way out of this disco inferno.¹⁴

In retrospect, the entire second section of *Max Payne* overflows with references to Second World border-regions, where state-of-the-art technology co-exists with the violence of primitive global accumulation. This suggests that Vladimir is something like the Second World mirror image or structural double of Max Payne, whose presence allows Finland to catch a fleeting glimpse of its own mid-20th century prehistory as a Second World exporter of raw materials and basic manufactured goods in the mirror of post-autarkic Russia's shotgun integration into the EU. But instead of seeking to displace or neutralize this mirror image via a compensatory neo-nationalism – the limit-point, in retrospect, of *Half Life*'s Xen levels, which allude to a post-American cultural space the narrative never quite crosses over into – Lake will follow Manke's lead, and transform a non-American identity-politics into the springboard of the multinational. The Mafia or revenge drama will thus be literally and figuratively cancelled out by the multinational high-tech thriller.

Lake's key move here is to cite one of the oldest tropes of the information culture of them all, namely Burroughs' nightmarish vision of global consumerism as a continuum of programmed addictions, in order to portray the nightmarish reality of a post-Cold War neoliberalism which has surpassed the US military-industrial complex which spawned it. This is the genesis of the opening prologue of *A Bit Closer to Heaven*, which rewrites the character-slot of Mona Sax and the film noir trope of the knockout pill (the professional woman, who is linked to the Mafia but not reducible to such, and 1950s-era pharmaceutical technologies) into Aesir's Ueber-boss Nicole Horne and the drug Valkyr.

Significantly, this sequence does not begin inside the confines of the Payne family home, but in a dream-version of Punchinello's private office. A cut-scene displays a wildly careening zoom shot which zeroes in on Max, while Lupino's chilling line ("The flesh of fallen angels") echoes eerily against a hallucinatory background of chimes. The office leads to the foyer of Max's home, where the huge mirror on the wall is stained with blood. Later, a brief vignette showcases Max and Michelle confronting each other. The hall of mirrors or mirror-like frame, neo-Expressionistic lighting, and the private eye are all classic symbols of the noir thriller. What may seem to be a cinematic reference, however, is immediately short-circuited by the

reappearance of Punchinello's office. In this version, rows of heatless flames burn on either wall, while a letter and a ringing phone lie on the desk. The voice on the telephone is Max himself, spouting vaguely Surrealist gibberish, halfway between a poetry slam and a screen test, although Max seems curiously unable to recognize his own voice. Things get truly strange, however, when Max reads the letter:

Max: *internal monologue*: There was something disturbingly familiar about the letter before me. The handwriting was all pretty curves.

Voice of Michelle: "You are in a graphic novel." *A composite of various screen-shots of the game appears.*

Max: *internal monologue*: The truth split my skull open, a glaring green light washing the lies away. All of my past was just fragmented still shots, words hanging in the air like balloons. I was in a graphic novel. Funny as hell, it was the most horrible thing I could think of.¹⁵

This is an extraordinary invocation of a key scene in Heiner Müller's theatrical classic *Hamletmachine*, which refers to the live video feeds of the global news media as "soundproof speech-balloons".¹⁶ Upon exiting the room, the scene fades to black, and Max enters Punchinello's office yet again, this time to confront a slightly different letter and phone message. It is here that Lake squares the magic circle of videogame culture, by linking Müller's dazzling meditation on the birth-hour of multinational politics with the reflexive content of the 3D game:

Max: *internal monologue*: There was something disturbingly familiar about the letter before me. The handwriting was all pretty curves.

Voice of Michelle: "You're in a computer game, Max." *A composite of various screen-shots of the game appears.*

Max: *monologue continues*: The truth was a burning green crack through my brain. Weapon statistics hanging in the air, glimpsed out of the corner of my eye. Endless repetition of the act of shooting, time slowing down to show off my moves. The paranoid feel of someone controlling my every step. Funny as hell, it was the most horrible thing I could think of.¹⁷

On the telephone, the voice of Alex tries to calm him down ("Don't lose it! It's Valkyr! The drug! Snap out of it! Try to remember!") but Max cannot recognize Alex's voice, either. After navigating another glowing red maze in the midst of a red snowstorm, this one accompanied by the acoustic backdrop of the baby's cries and Michelle's weeping, Max must confront the most dangerous foe of them all, namely *himself*.

In one of the most astounding moments in the history of the multinational media culture, the player-character's undercover Max and a business-suited Max Payne – the "anti-Payne", as it were – battle it out in slow motion inside the Payne family bedroom. The sole witness is Michelle's corpse, lying sprawled on the bed. When the anti-Payne is finally dispatched, triggering the circular pan normally associated with the player-character's demise, the real Max watches his double fall, and then walks over to Michelle's body. In the background glimmers a photo of the Twin Towers. It's worth reiterating that, given the game's completion in early 2001, this was *not* a symbol of geopolitical disaster, but rather the most explicitly global of all possible global frames.

The crucial clue here is Max's subsequent cry of anguish. In fact, the narrative logic of the sequence is driven not by images, but by the sound-track. Michelle's tears in the void are not merely the promissory note on the tears Max cannot shed himself, they are also the narrative *content* of that void – the voice of the voiceless, echoing in the shadowy expanse of

multinational space like some cosmic background radiation. That is, whereas Lupino's voice and the hallucinogenic chimes signify a toxic neo-nationalism spawned by neoliberalism, and where the ringing telephone and mysterious letters point to an international communications and postal network disrupted or stymied by globalization, the red maze is bracketed by the bullet-time sound-effect at the beginning, and Max's own guilty self-accusation ("The killer was smiling") at the end – the guilt, in short, of global survivorhood. The struggle between Max and his anti-twin is not really a battle between global antagonists, of the sort endemic to the mass-cultural thrillers of the 1970s, e.g. the character-systems of *Enter the Dragon* or *Three Days of the Condor*, which still bear the imprint of the Cold War allegories of the past. It is, rather, the first great clash of antagonistic globalizations.

This clash is not a single engagement, but a series of rolling firefights, fought out in three distinct infrastructures. The first is the realm of multinational production, symbolized by Cold Steel rolling mill and the Deep Six drug lab – twin avatars of the global factory which Lake counter-signs with a double citation from the Hong Kong films and the comic book *Man of Steel*.¹⁸ The second is the realm of the multinational service-sector, where the spectacular destruction of automobiles in the Choir Communications' garage counterpoints the equally spectacular destruction of the archives of the Inner Circle in the Asgard Building (icons of multinational distribution and juridical infrastructures, respectively). Global production and the global service-sector converge in the third and final space: the realm of multinational financial speculation and accumulation, a.k.a. the Aesir corporate tower.

But whereas the wall-pics we analyzed earlier still bear the marks of the archaic photograph and cinema reel, these particular infrastructures are no longer tied to a neo-national or even international content. The heritage of visual realism and modernism passes over into 3D multinationalism, and this is why neither Aesir's streamlined furniture and designer offices, nor the abstract paintings and sculptures decorating Nicole Horne's penthouse suite, are the late modernist anachronisms they seem to be. Rather, each of these things becomes an informatic symbol in its own right. The furniture and sculptures serve as impromptu barricades, the paintings become stylized data-prints, while the office cubicles turn into battle-stations in the global free-fire zone of information capitalism. If the truth of the great science fiction narratives of the 1990s, ranging from *Evangelion* to *The Matrix*, is that the working people of planet Earth have become data-grunts in the war of the informatic landscapes, then Max Payne is the post-American Neo, leading the counter-attack against the total system on its own global terrain.

The key moment of this counter-attack is the reappropriation of the very first wall-pic presented in the game, namely the mysterious Valkyr logo tattooed on the wall of Max's New Jersey home. This logo now turns out to harbor the single most shocking retroactivity of them all: deep in the bowels of Deep Six, Max discovers that Valkyr was designed and tested as a means of boosting the combat performance of soldiers by a secret 1991-1995 US Army program called Project Valhalla. Though the horrific side-effects of the drug eventually led to its cancellation, the Aesir corporation continued the program as a private venture, using New York City's junkies as involuntary test subjects:

There was an old Army bunker under the steel mill. I knew the military plaque on the floor. I had seen a thousand variations of the insignia on crumbling brick walls everywhere in the city, the sword replaced by a syringe. Project Valhalla. V for Valkyr. All of a sudden it read like a crackpot conspiracy theory.¹⁹

The logo of the Cold War state corporation is rewritten into an icon of the neoliberal or corporate

state. This insight triggers one of the greatest lines of the story:

The chemist had been using the workstation when he died. The half life of the lab rat had ended online, his password blinking: 665 – the neighbor of the beast.²⁰

This is a crackerjack pun on the biotech industry, the computer workstation industry, and the online multi-player genre spawned by *Half Life*, all sealed by an oblique reference on the Biblical number of the beast, 666. Lake comes remarkably close in this passage to Bourdieu's epochal diagnosis of neoliberalism as a kind of financial fundamentalism in the latter's *Acts of Resistance*, something confirmed by a later scene where Max runs into Mona Sax ("Like religious fanatics or loyal samurai Horne's private army was coming at me").²¹

It is precisely at such moments that Lake's post-American narrative framework pays its richest dividends, by sidestepping one of the key limitations of the videogame culture of the late 1990s. This is its dependence on the Cold War media culture for its narrative forms, e.g. *Half Life*'s Black Mesa lab facility, or Gordon Freeman as the secret agent devoid of a secret agency. Instead of citing the national security state as a form, Lake turns to the spy agency's historical successor, namely the multinational corporation, as a source of narrative material. The key contribution of the Valkyr sub-plot, in other words, is that it hardwires the machinery of the global credit superstructure directly to the institutions of multinational accumulation.

This is subtly relayed by Valkyr's packaging and mode of transmission: the canisters of the drug glow bright green, and are typically located next to green bundles of US currency. The final clue is relayed by the television announcer Max sees on the TV sets scattered throughout the game, whose name is "Kyra Silver": Valhalla (the military-industrial complex) plus Kyra (global marketing and distribution) equals Valkyr (the product of the Aesir Corporation). The irresistible suggestion is that Valkyr is a kind of liquid currency, whose ultimate referent is nothing less than the US dollar – the world currency of the late 20th century, and the central instrument of neoliberalism's toxic rule.

What is most extraordinary about Lake's script is that instead of merely diagnosing the destructive effects of neoliberalism, the storyline pushes still further, in the direction of the global resistance to such. These are rooted in the bodies poisoned, brutalized and destroyed by Aesir's Valkyr-fuelled drive to global hegemony. The most obvious example are the members of Max's family and his friend Alex, though one could also cite the Valkyr junkies – ciphers of the volatile global reserve army of labor spawned by neoliberalism, eking out a precarious living in favelas and shanty-towns. Somewhat further afield, the members of the Inner Circle symbolize the various comprador and national bourgeoisies liquidated by the onslaught of multinational capital.

The single most important of these bodies, however, is that of Max himself, and in particular, the "maximum pain" to which the storyline frequently alludes – the experience, in short, of corporeal negativity and suffering. This negativity is by no means a mere metaphor, but is anchored in a genuine layer of historical experience. The crucial piece of information here is the temporal frame of the Valhalla program, i.e. the period 1991-1995. The early 1990s was the nadir of Finland's post-Cold War economic crisis. Thanks to the collapse of lucrative Soviet export markets and a recession in continental Europe, the country experienced a full-blown economic depression.

Finland responded with the equivalent of an economic miracle. It paid down its massive foreign debts, bailed out its banking system, and preserved its welfare state, while powering up its economy for the 21st century – a process exemplified by Nokia's transformation from a

lumbering consumer-goods conglomerate into the Ueber-beast of the cell-phone biz. Yet if *Max Payne* marks the moment when the personal became the geopolitical, in the sense that Max's one-person battle against Aesir recounts Finland's epic battle against neoliberalism in 3D form, then the reverse is also true: the geopolitical has become the personal. The guilt of Max's survivorhood is global guilt, driven by the recognition that Finland escaped the neoliberal wrecking-ball by the skin of its teeth, at the same time that nearby Estonia, Latvia, Lithuania, and Russia, through no fault of their own, were being pulverized. What transforms Max's personal crusade into a collective project, on the other hand, is the fact that bodily suffering calls forth not vengeance, but justice. This is anticipated by a searing line in Chapter 6:

I had dreamed of revenge. These dreams were always nightmares, of coming close and failing.
Now I was close. I had a name to guide me.
I had nothing to lose.²²

If all dreams of revenge do ultimately turn into nightmares, this is because vengeance is the mere reiteration of the original trauma, and not its cessation or healing. But the juxtaposition of the objective name of the total system and the subjective condition of total expropriation points in a different direction, that is to say, towards the shadowy, utopian realm of global justice.

Subtle references to that realm abound in the very last chapter of the game, whose title, "Pain and Suffering", is bracketed by the opening shot of the sheer, blank face of an anonymous skyscraper, and by the closing showdown on the literal and figurative roof of the world. In fact, the entire Aesir tower sequence is saturated with reflexive puns on the action-adventure genre – e.g. the killer suits comment on everything from their favorite action movies to the invention of bullet-time, while Nicole Horne plays manager to her hirelings, who are demoralized by Max's relentless assault – as well as a host of informatic signifiers, ranging from the Aesir security computers to Nicole Horne's personal laptop, to the green-screen wall-map of Aesir's corporate subsidiaries in New York, Houston, Sydney, Berlin and Helsinki.

These mediatic and informatic registers converge in the final scene, which cleverly displaces the stereotypical finale of the Hollywood blockbuster as well as the traditional "boss" sequence of the videogame genre. Unable to attack Horne directly, Max must topple the radio mast at the very top of the Aesir building onto Horne's helicopter before it can take off from the landing pad. After he does this, the helicopter plunges to its fiery doom, against the backdrop of a circular pan of downtown Manhattan, with the Empire State Building and the Twin Towers prominent in the background. This leads to the finale:

Shot of Max against night sky.

Max: "And then it was all over. The storm seemed to lose its frenzy. The ragged clouds gave way to the stars above."

Noise of police chopper. Bravura: "This is Deputy Chief Jim Bravura from the NYPD. We've got the building surrounded. Thrown down your weapons and lie down with your hands behind your head."

Shot of Max, the pained sneer now a weary smile, against the background of the clearing sky.

Max: "A bit closer to Heaven. The cops' voices were distant and muted."

Cop 1: "Freeze!"

Cop 2: "NYPD!"

Cop 3: "Hold it right there."

Max: "My ghosts released me from their haunting. Down below, New York City glittered like diamonds on black velvet."

Bravura: “You gave us one hell of a ride. Take him down to central booking.” *The cops hustle Max into a patrol car.*

Cop 4: “You heard the man.”

Cut to shot of Max in back of police car.

Max: “Woden was there in the crowd, standing by the sidelines. It wouldn’t be over till the man with the patch would say so. He’d say the right words. I knew he would. He’d better. Woden grinned smugly. It was the grin of a winner. That made two of us.”²³

This is the moment when the national juridical system of the prototypical global city touches base with its multinational successor. Where Nicole Horne is clearly the name of a previously nameless neoliberalism, and where the Aesir tower is the embodiment of a hitherto bodiless multinational capitalism, Alfred Woden is clearly the representative of a multinational authority somehow complicit with globalization, and yet antagonistic to Wall Street neoliberalism. This can be nothing else than the world’s first multinational democracy and newest superpower, namely the European Union, and there is a sense in which Woden’s role in the storyline is reminiscent of the EU’s mushrooming array of economic, political, cultural and regulatory agencies. These latter covertly aided Eastern Europe in its life-and-death struggle with neoliberalism in the 1990s, and did not openly intervene on their behalf until their formal accession into the EU in the 2000-2004 period.

It is extremely significant that whereas *Half Life* concluded with the Administrator’s offer of entry into an interstellar job market, *Max Payne* concludes with three specifically anti-market constellations. The first is revealed by Max’s comment, “A bit closer to Heaven” – the sublation of the Aesir corporate logo displayed on the company’s billboards into an informatic pun (the computer bit is the smallest recordable unit of data, which signifies either a 0 or 1). The second is the reference to Max’s ghosts, which suggests the emancipation of the concept of justice from the realm of the nation-state, the Cold War superstate and the multinational corporation alike. The third and perhaps most interesting of all is the end of the blizzard, the uncanny premonition of the end of the thirty-year Ice Age of neoliberalism. Yet if one could catch a glimpse of the sky above Manhattan, one constellation would stand out: twelve stars in a circle, the emblem of the European Union, glimmering in the frosty night air like the unquenchable promise of global justice itself.

Endnotes

1. Note that the Playstation 2 version of *Max Payne* was hobbled due to hardware requirements, with the result that certain scenes were shortened into smaller segments, and any number of significant sub-elements had to be eliminated altogether. This analysis relies on the PC original. For reference purposes, the full original chapters and titles are as follows:

Part I: The American Dream

Prologue

Chapter 1 Roscoe Street Station

Chapter 2 Live From the Crime Scene

Chapter 3 Playing It Bogart

Chapter 4 The Blood Veins of New York

Chapter 5 Let the Gun Do the Talking

Chapter 6 Fear That Gives Men Wings

Chapter 7 Police Brutality

Chapter 8 Ragna Rock

Chapter 9 An Empire of Evil

Part II: A Cold Day in Hell

Prologue

Chapter 1 The Baseball Bat

Chapter 2 An Offer You Can't Refuse

Chapter 3 With Rats and Oily Water

Chapter 4 Put Out My Flames With Gasoline

Chapter 5 Angel of Death

Part III: A Bit Closer to Heaven

Prologue

Chapter 1 Take Me to Cold Steel

Chapter 2 Hidden Truths

Chapter 3 The Deep Six

Chapter 4 Backstabbing Bastard

Chapter 5: In the Land of the Blind

Chapter 6: Byzantine Power Game

Chapter 7: Nothing to Lose

Chapter 8: Pain and Suffering

2. *Max Payne*. Part I, Prologue. Note that all citations from the text are formatted as follows: the original text in the game is in normal font, while my own descriptions are in italics.

3. It's worth pointing out that Woo's films have their own intriguing geopolitical provenance. Hong Kong in the 1980s was a rising Second World city-state which lacked an autonomous self-sufficient political and cultural identity; it was precisely the contradiction between its exploding entrepreneurial wealth on the one hand, and its cultural and symbolic subalternity vis-à-vis Britain, the US and mainland China on the other, which generated that unique window of

historical opportunity seized by the Hong Kong film industry. The reason that Woo could recombine the 1970s Hong Kong *wuxia* films and the 1980s sci-action blockbusters of James Cameron on the specific grounds of classic film noir (defined as the span from Michael Curtiz' *Casablanca* (1942) to Orson Welles' *Touch of Evil* (1958)), is that Hong Kong in the 1980s went through the same process of consumerization which the US experienced in the 1940s and 1950s, Western Europe in the 1960s, and Japan in the 1970s: the arrival of a vertiginous, mystifying and mediatizing prosperity.

4. "About halfway into the PC development of Max Payne, we realized that Max is the perfect console game, and from that point onward, we were careful to design it as a console-style game, even though it was going to debut on the PC. You can see this in the simplicity of the controls, the easy-to-understand interface, and the upward scalability of the graphics, which only top-of-the-line PCs can take advantage of, but all Xbox players will see in full detail and action-packed glory." Interviewer: Anonymous. Respondent: Petri Jarvilehto, Remedy project leader.

Gamespot, 2001. Web:

<<http://gamespot.com/gamespot/stories/previews/0,10869,2828189,00.html>>. Note that this website is no longer freely available to the public, due to CNET's policy of charging admission to view Gamespot archives.

5. An anonymous interviewer on the Max Payne fansite Payne Reactor had this to say:

"I've heard there are some people from the old demoscene working for Remedy, if it's true, who is it?"

That's true, the following old sceners are working in Remedy (in alphabetical order). Thanks to Peter Hajba for giving me that info.

Peter Hajba (Skaven / Future Crew) - graphics artist
Kiia Kallio (Lance / Aggression) - Illustrator
Saku Lehtinen (Owl / Aggression) - level designer
Markus Mäki (Henchman / Future Crew) - general manager
Aki Määttä (Marvel / Future Crew) - level designer
Jussi Räsänen (Juliet / CNCD) - programmer
Markus Stein (Stone / Dust) - lead programmer
Sami Vanhatalo (Reward / Complex) - lead graphic designer
Samuli Viikinen (Prager / Fascination) - lead level designer."

Web: <http://www.paynereactor.com/faq.htm>

6. In fact, Remedy borrowed several other elements of the film, including Max's signature trench coat; the slow-motion explosion near the end of the Roscoe Station sequence; the corporate mercenaries or "killer suits", who are variants of the Agents; and of course the Aesir corporate lobby, which is based on *The Matrix*' lobby.

7. *Max Payne*. Part I, Chapter 6.

8. Ibid. Part I, Chapter 8.

9. Ibid. Part I, Chapter 9.

10. Heiner Müller. *Life of Gundling Lessing's Sleep Dream Cry*. Berlin: Rotbuch Verlag, 1983. (My translation.) The scene in question is a tour of a madhouse by a smug professor and his well-born students in the era of Frederick the Great, who rationalize one horror after another as the height of Enlightenment reason (Müller had Kant in mind, of course). At the end, the following takes place:

PROFESSOR A madhouse. QED, quod erat demonstrandum. Let us go, gentlemen.

Professor and students exit.

ZEBAHL *whispers*: Yes, I created the world. I am the Fool, I am the Criminal. I can tear my eyes out and still see you. If only I could die. I killed my son. I Filth of my Creation Vomit of my Angels Suppuration in my Harmonies. I am the Slaughter-Rack. I am the Earthquake. I am the Animal. The War. I am the Wasteland. *Shriek. Black angels populate the audience-chamber and fall silently on the theater-goers.*

11. *Max Payne*. Part I, Chapter 9.

12. See the “Prussian Games” sections of: Heiner Müller. *Life of Gundling Lessing's Sleep Dream Cry*. Berlin: Rotbuch Verlag, 1983.

13. *Max Payne*. Part II, Chapters 1-2.

14. Ibid. Part II, Chapter 4.

15. Ibid. Part III, Prologue.

16. Heiner Müller. *The Hamletmachine*. Berlin: Rotbuch Verlag, 1979. “I hang my uniformed flesh by the feet. I am the soldier in the tank-turret, my head is empty under the helmet, the strangled cry under the chains. I am the typewriter. I tie the noose, when the leaders are hanged, kick the stool away, break my neck I am my own prisoner. I feed my data into the computer. My roles are spit and spittoon knife and wound teeth and gum neck and gallows. I am the data-bank. Bleeding in the crowd. Exhaling behind the double doors. Wordslime bubbling in soundproof speech-balloons over the battle.” (My own translation).

17. *Max Payne*. Part III, Prologue.

18. “The bad trip had put me in a crazy mood, adrenaline pumping through my aching veins. Staggering on the mill roof in ice and snow and wild wind, I was a ninja, my kung fu was strong. I wasn't kidding anybody. At best I was Superman on kryptonite about to fall through a skylight, down to where it was all going down.” *Max Payne*. Part III, Chapter 1. Kryptonite, for readers unfamiliar with the comic strip, is a radioactive ore which renders Superman powerless; here, the trope clearly anticipates Payne's discovery of the true history of Valkyr.

19. Ibid. Part III, Chapter 3.
20. Ibid. Part III, Chapter 3.
21. Ibid. Part III, Chapter 7.
22. Ibid. Part III, Chapter 6.
23. Ibid. Part III, Chapter 8.