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Turbulence: a cartography of postmodern
violence

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Abstract

This thesis maps the end of the millenium in terms of the geo-strategic flux of the post Cold War world system. Using the concept of turbulence developed in the physics of fluids, and Gilles Deleuze & Felix Guattari's liquid microphysics of the war machine, a materialist analysis of violence is developed which cuts through the binary oppostions of order/chaos, law/violence, war/peace to construct a cartography of speeds and slowness, collective compositions and power. **Sector 1** defines postmodernity in terms of cybernetic culture, delineating the distinction between Deleuze & Guattari's concept of cartography and steering the problem out of the remit of a juridico/politico/moral discourse towards physics. **Sector 2** develops a fluid physics of turbulence and connects it to a materialist analysis of social systems by mapping *turbulent and laminar flow* onto Deleuze & Guattari's *war machine and apparatus of capture*. A fluid dynamics of insurgency is then outlined with reference to the geo-strategic undercurrent constituted by Chinese martial theory. **Sector 3** reconfigures social evolution in relation to the non-linear social physics developed in Sector 2, unmasking the racism and Imperialism of linear narratives of progress. Instead of progression from one historical phase to another, the planet is seen to be composed of a virtual co-existence of modes stretched out on a continuum of war. This continuum connects the martial modes of despotic states, disciplinary states and packs. These modes differ in their degree of compositional laminarization. **Sector 4** deploys the cartography on the emergence of a planetary cybernetic culture and its relation to a global machinery of war. Postmodern control is designated as *turbulence simulation or programmed catastrophe*- a runaway process of *accident or emergency quantizing* typified by implosive turbulence in the core of the world system and its *overexposure*. **Sector 5** pushes the cartography towards an anti-fascist fluid mechanics otherwise denoted as an *ethics of speed or a tao of turbulence*.

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ABBREVIATED REFERENCES

- AO** Deleuze, G. & Guattari, F. (1983) *Anti Oedipus*, London: Athlone.
- ATP** Deleuze, G. & Guattari, F. (1988) *A Thousand Plateaus*, London: Athlone.
- AV** Clastre, P. (1994) *Archaeology of Violence*, NY: Semiotexte.
- AW** Sun Tzu, (1971) *The Art of War*, trans., S. Griffith, London: Oxford Uni. Press.
- BA** Virilio, P. (1994) *Bunker Archeology*, Princeton University Press.
- CP** Canetti, E. (1984) *Crowds & Power*, trans. C. Stewart, London: Penguin.
- DP** Foucault, M. (1977) *Discipline & Punish*, trans. A. Sheridan, London: Penguin.
- DS** Virilio, P. (1998) 'Desert Screen' in *The Virilio Reader*, London: Oxford.
- F** Deleuze, G. (1988) *Foucault*, trans. Sean Hand, Minneapolis: Uni. of Minnesota Press.
- FLE** Massumi, B. (1992) *First & Last Emperors*, NY: Autonomedia.
- GW** Baudrillard, J. (1991) *The Gulf War did not take place*, Sydney: Power.
- H** Serres, M. (1992) *Hermes: Literature, Science and Philosophy*. London: John Hopkins Press.
- MPF** Guattari, F. (1984) 'The Micro-politics of Fascism' in *Molecular Revolution*, Harmondsworth: Penguin.
- OD** Wittfogel, K. (1967) *Oriental Despotism*, Mass: University of Yale Press.
- PA** Virilio, P. (1993) 'The Primal Accident' in B. Massumi, *The Politics of Everyday Fear*, University of Minnesota Press.
- PDES** Virilio, P. (1990) *Popular Defense & Ecological Struggles*, NY: Semiotexte.
- PW** Virilio, P. (1983) *Pure War*, NY: Semiotexte.
- SP** Virilio, P. (1986) *Speed & Politics*, trans. Mark Polizzotti, NY: Semiotexte.
- UG** Massumi, B. (1993) *A Users Guide to Capitalism and Schizophrenia*. Camb, Mass: Swerve.
- WA** Toffler, A. & H. Toffler (1993) *War and Anti-War: Survival at the Dawn of the 21st Century*, London: Warner.
- WAI** Da Landa, M. (1991) *War In the Age of Intelligent Machines*, NY: Swerve.
- M**
- ZO** Plant, S. (1997) *Zeros & Ones*, London: Fourth Estate.

Introduction: unfolding the map

In the following text, an attempt will be made to map the dynamics of flux in the contemporary world system. Specifically, this will be done by focusing on *turbulence* as a means of conceptualising social systems 'far from equilibrium'. The world system is framed from the perspective of *fluid dynamics* in order to follow key transitions along what I will term the *continuum of war*. This continuum transects social systems, cutting from micro/local to macro/global scales. On this continuum, it will be argued, can be found parallel processes working on every scale suggesting emergent signs of a radically new technological civilization, a *cybernetic culture*, with a corresponding reconfiguration of violence in humanoid populations.

The thesis is divided into 5 sectors which I will now briefly outline:

In **Sector 1 Cartography**, the parameters of the study will be delimited, setting out why the focus of the thesis concerns a *cartography of postmodern violence*. In the **Sector 1.1 machinic postmodernism**, a functional definition of 'postmodernity' will be framed with reference to the emergence of 'cybernetic control society', understood as a fundamental shift in the material condition of the 'human' in relation to the 'machinic' and therefore in bio-technical configurations of violence. This situates the

discussion between the work of Michel Foucault and his analysis of disciplinary society [in e.g. *Discipline & Punish-surveillance/enclosure/confinement*] and Paul Virilio's outline of a post-disciplinary dis-order [in e.g. *Speed & Politics-simulation/circulation/speed*]. The fluid dynamics of postmodern violence can be mapped from a perspective rewired out of their abstract micro-physics of chaos. I will argue that the insights of both perspectives are consolidated and pushed much further by Gilles Deleuze & Felix Guattari [particularly in *A Thousand Plateaus*]. Most importantly, using Deleuze & Guattari's writing, a *machinic postmodernism* will be developed which moves beyond the cultural nihilism, and the 'ethical impasse' which typifies the melancholy of postmodern discourse. *Machinic postmodernism* will be seen throughout the thesis to map onto what will be termed 'an ethics of speed', which simultaneously provides a critique of fascism and its relation to speed outlined by Virilio, but further constructs a pragmatics of collective libidinal destratification.

In **Sector 1.2 cartography**, Deleuze & Guattari's concept of *cartography* is applied to *postmodern violence* and is therefore put in the context of the digital mapping of control phase cybernetics working on the logic of simulation, countering control cybernetics' flattening of the distinction between nature and culture without making recourse to a nostalgic anthropomorphism. In this section,

it will be argued that *machinic postmodernism* pushes this flattening further, forcing cartography out of the representation of territory into an active deterritorializing tool. The cartography facilitated by *machinic postmodernism*, draws from Spinoza to map diverse bodies as agglomerations of lines, ensembles of speed and slowness (longitude- relation of composition) and power (latitude- affective potential).

The perspectives on violence which I draw from all problematize the concept of 'violence' and its moral/politico/juridical models, opening out the problem to a more materialist analysis. **Sector 1.3 violence**, expands on this materialism, dissolving the problem of violence out of State philosophy into a physics of speeds and slowness, order, chaos and power. This will be achieved through a discussion of Deleuze & Guattari's concept of the war machine in *A Thousand Plateaus*, and its *synthetic* relation to violence. The *immanentism* of their analysis allows the diverse usage of the term violence (crime, struggle, police, punishment, war, revolution) to be *topologized*, unfolded, or explicated on one material continuum, here described as a *war continuum* but variously termed elsewhere *substance*(in Spinoza's sense), *the machinic phylum* or the *plane of consistency*. As is argued in **Sector 5.2** this 'ethics of speed', processed through Irigaray implies a critique of the philosophical

State/Man complex which has dominated Occidental thought patterns and which in postmodernity collapses into nihilism.

In **Sector 2 Turbulence**, I will zoom in to the cartography outlined in **Sector 1** and focus on its fundamental dynamics of transition, of flux and emergent pattern. The concept of 'turbulence' will be tracked down to its emergence from chaos theory, fluid dynamics and non-linear physics. In **Sector 2.1 turbulence simulation**, the discussion of digital cartography initiated in **Sector 1.2** is extended so as to designate the abstract machine of cybernetic control societies as the *simulation of turbulence*. The analysis of violence is dissolved into a problem of physics and matter/energetic flow. This will allow the mapping of population dynamics to be described in terms which can understand insurgent behaviour in terms more fundamental than law/order and violence/disorder binaries. Conceptualising populations in terms of laminar and turbulent flow, critical speeds and thresholds is fundamental to grasping Deleuze & Guattari's *machinic postmodernism*.

In **Sector 2.2 base turbulence**, Deleuze & Guattari's *machinic postmodernism* is examined particularly through the mapping which corresponds respectively *laminar* and *turbulent flow* with the *apparatus of capture* and the *nomad war machine*. The primary process of social systems are defined in terms of flow and its

irrigation/channelling, explaining Deleuze & Guattari's differentiations between 'classes' and 'masses' and its connection to Elias Canetti's crowd dynamics. These tools are then used to outline a conceptualisation of the 'nomadic potential' of the riot and guerrilla warfare. In **Sector 2.3 guerrilla insurgency**, this fluid dynamics is contrasted to key streams of Chinese martial theory, particularly Sun Tzu, and which I designate as a "*war hydraulics*". This evolves into a analysis of postmodern strategy in a turbulent world system emerging from the shadow of the Cold War into the volatility of system meltdown.

In **Sector 3 War Continuum**, the non-linear social dynamics developed in **Sector 2** are applied to history and social evolution, setting the cartography in motion across time. **Sector 3.1 non-linear history**, explains *machinic postmodernism's* critique of teleology and thermal equilibrium in narratives of historical evolution, Occidental triumphalism, technological progress and the route from the jungle to cybernetic civilization. Using Deleuze & Guattari's social topology to challenge the linear history of evolutionary stages, social segmentarity, rigid and supple, is mapped onto the war continuum, unfolding evolution into a co-presence of modes, defined by the longitude and latitude of collective bodies, their relations of speed and slowness and mode of power. The ultimate purpose of this discussion is to illuminate

how in the world system of apparent equilibrium and nuclear deterrence, 'perpetual peace' along the East-West axis served merely as a camouflage for emergent turbulence along an intensive North-South axis as discussed in **Sector 4**.

In **Sector 3.2 Planetary co-laminarization**, I follow Deleuze & Guattari's examination of the State megamachine and fuse this with the previous discussion of the State as a machine of laminarization, *a side effect of base turbulence*. I outline the megamachinic components of the world system and map out the abstract complementarity between despotic hierarchies and flat disciplinary machineries of modernity. With each mode of the State, I attempt to map its configurational economy of violence. In **Sector 3.3 Cruelty machines**, in a critical analysis of Pierre Clastre's anthropology, I discuss the relation between supple segmentarity, primitive social machines, non-hierarchical systems and war against the state. The purpose is to abstract out the fluid dynamical principles so that such *meshwork* social formations are not just relegated to an idyllic or a barbaric past in a linear narrative of history, but rather to underline that its longitude and latitude are perfectly contemporary and testify to the increasing significance of non-State modes of social consistency, their tendencies to militarise or operate '*far from equilibrium*'.

In **Sector 4 Programmed Catastrophe**, I will examine the specificities of turbulence and its simulation in postmodernity. Flux and transitions in regimes of violence are mapped with relation to crime, punishment, terrorism and rioting. These phenomena are analysed in relation to the volatile environment of cybernetic control societies.

In **Sector 4.1 States of emergency** the concept of *turbulence simulation* is developed through an articulation of *programmed catastrophe* as its complementary process. *Turbulence simulation* is an attempt to control the uncontrollable and *programmed catastrophe* is the proliferation of accidents and system crashing as a machinic protocol of risk society. The work of Virilio is fundamental to understanding the concept of *programmed catastrophe* as a mode of control and its malfunction. Particularly central is Virilio's theory of accidents which against the traditional conception of substance, takes accidents as primary in the same way that base turbulence was conceived of as primary process in **Sector 2**.

But Virilio's obsession with accidents reaches further. At the deep end of the continuum along which perturbations of the social are stretched, lies the accident of reality itself - virtual reality or cyberspace as the digital simulation of the real is the threshold

catastrophe of the human which defines cybernetic culture. Therefore I go onto discuss terrorism, a lower degree accident of the social in terms of this *general accident* examining how cybernetic urbanism and its media infrastructure control, simulate, stimulate, dampen, addict and amplify diverse quantum of turbulence. This becomes in turn a strategic question concerning the possibility of insurgency against a megamachine complex accelerated by a global war machine.

In **Sector 4.2 Postmodern War**, I trace components of this global war machine out of the jungle into cyberspace, from Vietnam to the Gulf War, through the emergence of *flight simulation*. Then, the discussion of simulation and terrorism in Virilio and Baudrillard's work is extended into their discussions of the Gulf War with their respective emphases on speed (pure war) and hyperreality (soft war). The infrastructure of the global war machine is mapped as an electronic terrain of instantaneous information transfer, satellite relay, digital display consoles and interfaces, autonomous self-guided weaponry/missiles and televisual coverage. The coming to prominence of stealth tactics in electronic warfare is reconnected to Sun Tzu's martial theory and its war hydraulics/fluid dynamics introduced in **Sector 2.3**. The question of insurgency against a machine which has returned the planet to a smooth space again is raised.

In **Sector 4.3 megalopian turbulence** this question is routed through a critical analysis of the LA riots, the emergent phenomena of 'Internal Souths' i.e. implosive turbulence in the core of the world system. In line with the earlier discussion of the *war continuum* and the *general accident*, the world system and its megalopian microcosms is conceptualised following Mike Davis as an *ecology of fear*. This sector, following the earlier arguments concerning terrorism ask whether insurgency in postmodernity is *overexposed*- i.e. has it been terminally captured by perfected control mechanisms and if not what mutations does insurgency assume in the age of information warfare, in other words, what manifestations are there of digital turbulence. For the cartography of the LA riots the modulation protocol of *programmed catastrophe* is explicated through non-linear modelling developments in catastrophe theory and their application to carceral turbulence such as prison riots, a brief outline of the impact of systems analysis and risk assessment on the criminal justice and penal machines of cybernetic control society. In **Sector 5 The Tao of Turbulence**, the discussion of the possibility and morphological potential of postmodern insurgency is examined through the conceptual oppositions of *rhizomania* and *rhizomatics*, *fascist speed* and *non-fascist speed*, *hydrophobic polioretics* and *fluid mechanics*. It aims at the designation of *machinic postmodernism* as an escape from

the impasse of nihilism, as an *ethics of speed*, of the production of *digital turbulence*.

In **Sector 5.1** Virilio's equation of speed with fascism is explored through Marinetti's futurism. Marinetti's depiction of the man/machine symbiosis and his aesthetics of violence is seen to epitomise a 'suicidal body fortressing' addicted to discharge and the 'darkside of speed'. By contrasting Marinetti's devotion to militarized speed and Theweleit's discussion of the libidinal dynamics of the German Freikorps, the link between this consistency of speed and fascism will be underlined. Looking behind this link, a masculinity under siege emerges in dread of all that dissolves around him, of the ocean and its darkest abyss, of woman, of blood, of flow, of communists. This fascist relation to fluidity is referred to as a kind of *hydrophobia* and is seen to saturate the technologies of modern subjection, individuation, normalization and the production of interiority.

Machinic postmodernism here emerges out of Guattari's *micropolitics of fascism* to describe the libidinal economy of fascist speed. Guattari constructs a bottom up model of the proliferation of fascist speeds, their distributed localized black holes and the secondary process of their centralised industrial resonance. With Deleuze, Guattari tracks speeds other than fascist ones, and follows

fascism out of the 1940s into the micro physics of everyday life as *specific bio-technical longitude and latitude, of relations of speed and slowness, molecular composition and affective potential.*

In **5.2 war hydraulics**, by contrast, *machinic postmodernism's* configuration of war and speed is examined as an anti-fascist fluid mechanics and critique of the flow chart of the Man-State complex. The previously mentioned fascist fear of the oceanic is developed and *machinic postmodernism's* fluid mechanics is seen to map the dread of female sexuality onto the State's dread of nomadism. Implicitly here is the correspondence in Deleuze & Guattari's work on the fluid dynamics of the nomad war machine (and its tao of turbulence or compositional tuning) onto the work on fluid mechanics by Luce Irigaray and Sadie Plant's use of both along side a guerrilla cyber-feminism which draws from Sun Tzu to offer a relation to speed, matter and machines which illustrates, counter Virilio, escape velocities which do not climax in fascist masculinity. This collection of theoretical overlays and conceptual adjacencies can be loosely termed a *tao of turbulence*, a pragmatics of production and survival in cybernetic culture.

In **5.3 the tao of turbulence**, *machinic postmodernism* is finally understood as an 'ethics of speed' which wages war on the nihilism of postmodern culture. *Machinic postmodernism* is seen to follow an

escape velocity. Cartography's job is to sense those fissures and breaks connecting them up, rerouting them in unforeseen ways, maintaining flat consistency and operating in the manner of a fluid system far from equilibrium, poised at the edge of pattern, inhabiting the virtual of which cyberspace is only a contemporary manifestation. For *machinic postmodernism*, the rhythms of this *ethics of speed* are sampled out of Spinoza's materialist Ethics and as we have seen a fluid dynamics tapped into from Chinese martial theory, Irigaray and Deleuze & Guattari's own chaos theory of war.

sector 1. Cartography

“Order, the turbulent order of a dissipative structure, is a tangential passage between two thresholds.”(UG: 61)

1.1 machinic postmodernism

When seen through the transition in the mode of waging war¹, the seemingly interterminal theoretical debates about the onset of ‘postmodernity’ constitute a series of strategic attempts to process a landscape saturated by the technical machines of a global military-cybernetics complex². A microcosm of this material shift,

¹ The dynamics of a postmodern configuration of violence has been widely documented. ‘Postmodern violence’ is theorised by social theorist, Zygmunt Bauman in his melancholy text, *Life In Fragments*. The phrase has the utility of encapsulating a diverse body of literature, all of which indicates the mode of warfare and social control in the cybernetic phase of capitalism. The new mode has multiplicitous designations, to name just a few, *Postmodern War* (Hables Gray 1997 London: Routledge), *The Permanent War Economy* (S. Melman 1974 Simon & Schuster), *Technology War* (Possony & Pournelle 1970 The Strategy of Technology, Cambridge, Mass: University of Cambridge), *Hi-tec war* (Edwards Artificial Intelligence & High Technology War Working Paper no.6, Silicon Valley Research Group, University of California at Santa Cruz), *The Perfect War* (Gibson 1986 Boston: Atlantic Monthly Press), *Imaginary War* (1987 in B. Smith & E.P Thompson, eds., *Prospectus for a Habitable Planet*, Penguin), *Computer War* (Van Creveld *Technology & War* 1989, Free Press), *Cyberwar/Netwar/Information war* (Cyberwar is Coming! Arquilla & Ronfeldt 1993 *Journal of Comparative Strategy*) *Neo-Cortical warfare* (Szafranski 1995 *A Theory of Information Warfare*, *Airpower Journal* IX, no.1 Spring: 18-27) and *Third Wave War* (A. & H. Toffler 1993 *War & Anti-War*, Warner Books.) By far, the most theoretically far reaching is that of Paul Virilio’s notion of *Pure War* and Manuel Da Landa’s *War in the Age of Intelligent Machines*.

² While most discussion of ‘postmodernism’ has been confined to the ‘cultural sphere’, i.e. architecture, film, literature, music etc. it is not difficult to see what this is built on; Frederic Jameson, for example, in the much discussed ‘Postmodernism, or the Cultural Logic of Late Capitalism’ argues rightly that “this whole global, yet American, postmodern culture is the internal and superstructural expression of a whole new wave of American military and economic domination throughout the world: in this sense, as throughout class history, the underside is blood, torture, death and horror.” For this very reason, Jameson can be agreed with when he writes in the same essay that “every position on postmodernism in culture- whether apologia or stigmatisation, is also at one and the same time, and necessarily, an implicitly political stance on the nature of multinational capitalism today.” It will be argued, however, that Jameson’s analysis, for the ‘machinic postmodernism’ developed here, remains

the critiques launched by Jean Baudrillard and Paul Virilio against Michel Foucault revolve around the perception that those modern 'disciplinary' societies diagrammed particularly in Foucault's *Discipline & Punish* are being machined into 'post-disciplinary' systems based on cybernetic control and a dominant logic of 'simulation'. This phase shift is seen to rework the social on practically every scale. It corresponds to a crisis of the world economy, which following materialist historian Fernand Braudel, we can conceptualise as a vast 'vibrating surface' composed of a swirling system of nested cycles, economies, regimes and machinic assemblages, roughly demarcatable into core, middle-zones and periphery; late capitalism signifies, in his terminology of crisis, "the beginning of a process of deconstruction: one coherent world system which has developed at a leisurely pace is going into or completing its decline, while another system is being born amid much hesitation and delay. This break with the past appears as the result of an accumulation of accidents, breakdowns and distortions."³ The world system in *turbulence* is no metaphor. Its broadest tendencies are mapped by Deleuze & Guattari, in what will be discussed later as their long-wave theory of capitalism;

"[The] centre-periphery axis is more important today than the West-East axis and even principally determines it. . .the more equilibrated things become at the centre between East and West, beginning with the equilibrium between overarmament, the more they become disequilibrated and destabilised from North to

ultimately inadequate due to his persistent allegiance to dialectics, hermeneutics and utopianism.

³ 85 in Braudel *Civilization and Capitalism*, vol.3, *The Perspective of the World*.

South and destabilise the central equilibrium. . .it is also clear that this destabilisation is not accidental but is a [theoremtic] consequence of the axioms of capitalism's functioning, principally the axiom called unequal exchange which is indispensable for capitalism's functioning. . .The more the world-wide axiomatic installs high industry and highly industrialised agriculture at the periphery, provisionally reserving for the centre so-called post-industrial activities (automation, information technologies, the conquest of space, overarmament, etc.) the more it installs peripheral zones of underdevelopment inside the centre, internal Third Worlds, Internal Souths."(ATP:466-67)

A cartography of the 'rhythm'⁴ of the capitalist world economy, its relations of speed and slowness (in time/space) is the crucial starting point for understanding the reconfigurations of postmodern violence. A political 'rhythm' underlies all conceptions of postmodernity. But few are sufficiently tuned to the dynamics of 'order out of chaos' which characterize a bifurcating global system. For this reason, our major guides through this morphologically fluid landscape will be Deleuze & Guattari and their points of convergence with chaos theory. It is their work, particularly *A Thousand Plateaus*, which will provide the basic conceptual distinctions to be deployed here, most notably 'cartography', their distinction between the 'war machine' and the state or 'apparatus of capture' and the corresponding dynamical concepts of 'turbulence' and 'laminar flow', 'smooth' space and 'striated' space, and 'rhythm' and 'meter.'

⁴ As Deleuze & Guattari argue in *A Thousand Plateaus*, in *On the Refrain*, rhythm is not just temporal but strongly related to space and territory.

After the Cold War bubbling undercurrents emerge to spiral and combine throwing the world system deeper into disarray. Futurologist Alvin Toffler points to a Third Wave⁵, a civilizational revolution which was triggered in the midst of the World Wars. Transforming the whole system, *cybernetic culture*⁶, a phase change in symbiotic bio-technics brings with it a knowledge intensive means of capital accumulation; "Everything in that system is now mutating, from its basic components. . .to the way they interrelate. . .to the speed of their interactions. . .to the interests over which countries contend. . .to the kind of wars that may result. . ." (WA: 319) The 'megamachinic'⁷ skin' of nation-states that surrounds the planet, i.e. the basic components of the World System of the last 3 centuries, is warping with the strain of its displacement. Core, middle zone and periphery melt into each other as the 'high-tech archipelago' surfaces. "In sum the old global system built around a few neatly defined nation-state 'chips' is replaced by a twenty first century global computer- a three level

⁵ The First Wave for Toffler was the agricultural revolution, the Second Wave the industrial revolution.

⁶ This notion of *cybernetic culture* to be deployed here is double edged- on the one hand, generally it defines the impact of computers on the military-industrial-entertainment complex since the end of the Second World War. A narrower definition, in light of Deleuze & Guattari's universal history of capitalism corresponds to 'flat', 'synergetic' or 'swarm' systems which emerge 'bottom up' and describes the dynamics of the 'nomad war machine' and its relation to turbulence. In this second sense, cybernetic culture has no necessary relation to technical machines at all, but corresponds just as much to Pantheistic practical religions. This will prove an important point in my later discussion of a 'nomad ethics of speed' in terms of the Chinese martial arts.

⁷ Sampled from Lewis Mumford's work on technics and civilisation, Deleuze & Guattari's usage of the term 'megamachine' in *Anti-Oedipus* can be taken as synonymous with 'apparatus of capture' in the later *A Thousand Plateaus*- both refer to the abstract mechanisms of the State, whether ancient or modern.

'motherboard', as it were, into which thousands and thousands of extremely varied chips are plugged."(WA: 324) The bio-technical assemblages of postmodernity are swept away by a socio-machinic convergence towards "cyborgian dehumanisation, molecular engineering systems, digital-format genomics, self-organising telecommercial networks and artificial space", [in postmodernity] "history is interfaced with the 'machinic phylum' of hybrid assemblages collapsing 2.5 millenia of transcendent authority into schizotechnic runaway."⁸

A cartography of postmodern violence has to map this transmutation in the midst of a 'black hole' culture of nihilism⁹, sidestepping the reactive normativism of philosophies of the State on one side, and its complementary idealism which culminates in the micro-dialectics¹⁰ of deconstructive textualism,¹¹ or the 'ethical

⁸ 131 in Land, N. (1995) *Machines & Technocultural Complexity: The Challenge of the Deleuze-Guattari Conjunction*, Theory, Culture & Society, Vol. 12, 131-140, London: Sage.

⁹ Nietzsche is deeply prophetic about the meltdown of Occidental value systems into nihilism, or in Deleuze & Guattari's terms, planetary schizophrenia. See especially *On the Genealogy of Morality* (1994) Cambridge: Cambridge Uni. Press; (1990) *Beyond Good & Evil*, Harmondsworth: Penguin; (1967) 'European Nihilism' in *The Will to Power*, NY: Vintage, where Nietzsche makes the important distinction between 'active' and 'passive' nihilism. It is Baudrillard who most solidly makes the association between postmodernity and nihilism in his essay 'On Nihilism' in *Simulations & Simulacrum* (1983), Semiotexte: New York. On a different tack, Land (1992) *The Thirst for Annihilation*, London: Routledge) chronicles the conjunction of Western Culture, thanatocracy and nihilism in postmodernity.

¹⁰ Deconstruction, it could be argued, is forced to resonate within the binary oppositions it focuses on because, where it maintains textual enclosure, it wages war with the outside which it persists in filtering through the 'funnel' of the 'other', facializing the outside of the subject, exteriority or the plane of consistency. Deleuze & Guattari's geological theory of language accounts for the

abdication¹² of postmodern melancholy. Instead I will propose a 'machinic postmodernism', which takes its cues from material developments in the modelling of dynamic systems¹³ which flatten the social into an all encompassing machinic nature¹⁴.

Theoretically, as William Bogard points out astutely in the *Simulation of Surveillance*, this places the present discussion of postmodern violence in the space between Foucault's analysis of the modern power of the disciplinary state and Paul Virilio and Jean Baudrillard's depiction of the postmodern society of simulation. Where surveillance involves the recording, storage and coding of

material production of double-articulations, connecting them to a whole landscape of stratification.

¹¹ Here, I am referring to Derrida's deconstruction of the law/violence binary in *Benjamin's Critique of Violence* in 'Force of Law: the mystical foundation of authority' which to a certain extent misses the radicality of Benjamin's argument. Negri & Hardt can be agreed with when they propose an alternative account of Benjamin's essay *construing* Benjamin's conception of 'divine violence' (distinct to the 'mythical violence' which makes and preserves the law) through Spinoza's God "we accept Derrida's interesting suggestion that divine violence be read primarily as a Judaic notion (as opposed to the Greek character of mythical violence), we would choose to do so in line not with the Judaism of Emmanuel Levinas, which Derrida seems to prefer, but the heretical Judaism of Baruch Spinoza."(331) And run through Spinoza, what they have in mind coincides with an 'ethics of speed', or the modus operandi of the Deleuze & Guattari's 'nomad war machine', a constitutive power 'not separated from but internal to what it can do; means and ends are posed in an internal relationship of efficient causality.'(295) Negri, A. & M. Hardt (1994) *The Labor of Dionysus*, Minneapolis: Uni. Of Minnesota.

¹² This is Felix Guattari's denunciation of the postmodernism of Lyotard & Baudrillard in 'The Postmodern Dead End' and 'Postmodernism and Ethical abdication.' In *The Guattari Reader* (1996) London: Blackwell.

¹³ In *The Postmodern Condition*, Jean Francois Lyotard, discusses these transitions with reference to postmodern science, referring even to the reorientation to the mapping of 'turbulence in general.'(1986) Manchester: Manchester University Press.

¹⁴ Hence the importance of Spinoza to 'machinic postmodernism,' particularly *The Ethics* and the use made of that text by Deleuze & Guattari (especially Deleuze's *Spinoza: Practical Philosophy*, [1988]City Lights) and Toni Negri (*The Savage Anomaly* [1991] Minneapolis: Uni. of Minnesota)

information, the new “technologies of simulation are forms of *hypersurveillant* control, where the prefix ‘hyper’ implies not simply an intensification of surveillance, but the effort to push surveillance technologies to their absolute limit. That limit is an imaginary line beyond which control operates, so to speak, in ‘advance’ of itself and where surveillance- a technology of exposure and recording- evolves into a technology of *pre*-exposure and *pre*-recording, a technical operation in which all control functions are reduced to modulations of preset codes.”¹⁵

It will be argued that the issues both Virilio & Baudrillard raise against Foucault’s analysis of power complement Foucault’s cartography. That is to say, through Deleuze & Guattari’s conceptual machinery, an attempt will be made to understand the *co-existence* of diverse abstract formations in time, a complex topology of emergent patterns signalling systemic bifurcation and turbulence. In a post-*Discipline & Punish* essay, Foucault problematises the linear model of historical progression which his sovereign-discipline model had been misread through; instead of “the replacement of a society of sovereignty by a disciplinary society and subsequently of a disciplinary society by a society of government [control]; instead one has a triangle, sovereignty-discipline-government, which has as its target the population and

¹⁵ 4 in Bogard (1996) *The Simulation of Surveillance*, Cambridge: Uni. of

as its essential mechanism, the apparatuses of security."¹⁶ This is not to deny transition but to point, with Braudel, to its discontinuous nature, its temporary rewinds, breakdowns, accidents and phase shifts.

In his seminal *Speed & Politics*, Paul Virilio renames the phase shift into modernity as a *dromocratic* revolution as opposed to the democratic revolution of Enlightenment liberalism. Virilio's analysis unfolds the normative discourse of juridico-moral philosophy into a materialist map of flows, an analytic cartography of violence¹⁷. By *dromocratic* revolution he means *the revolution of movement*, tracking the concrete history of the co-evolution of humans with the machines of capitalism and its darkside of war. State capture shifts gears into overdrive. Virilio launches an attack on Foucault's 'disciplinary society' for underplaying the base dynamic of circulation. Here Virilio concurs with Baudrillard that the 'productive' societies of modernity have been superseded by societies of circulating consumer capital and commodity cybernetics. Virilio zooms out so that the whole carceral architectonics that materialised into history at the Great

Cambridge Press.

¹⁶ 102 in 'Governmentality' in (1991) *The Foucault Effect*, (ed) C. Gordon,

¹⁷ Typical of his predominantly negative characterisations, Virilio, in *Pure War*, responds that "Speed is violence. The most obvious example is my fist. I have never weighed my fist, but it's about four hundred grams. I can make this fist into the slightest caress. But if I project it at great speed, I can give you a bloody nose. . ." (31 1983 NY: Semiotexte) As we will see below, Deleuze &

Confinement¹⁸ (or Great Bifurcation) becomes an axiomatic system tuned to “solve a problem less of enclosure than of traffic. . .”; a vast filter “acting as brakes against the acceleration of penetration.”(SP: 8) The rule of modern political philosophy has been the primary operation of apology for the State. Even in its critical and Marxist modes, the degree of idealism corresponds to the degree of complicity with transcendent authority and power, most importantly failing to understand the immanent operation of cybernetic capitalism. Bourgeois juridical philosophy thereby justifies ‘capture’ as the *modus operandi* of the State on the basis of social contracts, the rule of law, rights and responsibility, individuated, interiorized subjectivity and the chaining of thought to a model generalised around the Oedipal neuroses of white European masculinity. As Deleuze points out with reference to the revolutionary legacy of modernity and its central party organisations¹⁹, “revolutionaries. . . only demand a different legality which comes from winning power and installing a new machinery of the State.”(F:29)²⁰ A cartography of postmodern violence run through ‘machinic postmodernism’ becomes therefore a critique of this Euro-centric, Imperialist, State-Man complex. ‘Machinic postmodernism’ needs no transcendent criteria of

Guattari’s conception is speed, while influenced by Virilio, is ultimately much more nuanced.

¹⁸ Foucault, M. (1973) *Madness & Civilization*, New York: Vintage.

¹⁹ The implicit object of critique of post-1968 French theory.

judgement with which perform these tasks. No matter how functional in actuality, transcendence is the 'illusion' which capitalism itself dispenses with. The discourses of State philosophy are revealed as a transfer medium between the abstract diagram of power (the virtual) and their actual deployment. State philosophy, in Virilio's words, would constitute therefore "no more than a series of more or less conscious repetitions of the old communal poliorcetics²¹, confusing social order with the control of traffic (of people, of goods), and revolution, revolt, with traffic jams, illegal parking, multiple crashes, collisions."(SP: 14) In fact for Baudrillard and Virilio, the 'social' as Foucault describes its production, is superseded by the circulating flows of late capitalism. The suggestion is therefore that Foucault's concentration on 'enclosure' and 'confinement', the 'cellular' space and time of the extraction of surplus value, neglects a more fundamental process.

But, this critique seems to miss the mark somewhat. For example, in *Discipline & Punish*, Foucault is constantly opening the cells of

²⁰ We shall see later how Deleuze & Guattari and Virilio prefer a Chinese revolutionary theory which has as its primary operation the 'destruction of the State itself.'

²¹ The term 'poliorcetics' is a useful one which most generally refers to the general principles of fortressing and protective enclosure as actualized in ancient siege warfare. Paul Virilio's term was taken up in a 1978 article where Althusser questioned on the 'military aspect' of the French Communist Party- their strategy of secrecy, their substitution of poliorcetics for politics: "The State's political power, therefore is only secondarily 'power organized by one class to oppress each other.' More materially, it is the polis, the police, in other words the highway patrol, insofar as, since the dawn of the bourgeois revolution, the political discourse has been no more than a series of more-or-less conscious repetitions of the old communal poliorcetics,". . .(PDES: 107)

confinement to the outside, mapping the transversal flows which cut across the spaces of the interior. This is to say that like Virilio, he perceives the permeability of the membrane to the dynamic field of forces which it interiorized: the naval hospital, for instance for Foucault, "must treat, but in order to do this it must be a filter, a mechanism that pins down and partitions: it must provide a hold over this whole mobile, swarming mass, by dissipating the confusion of illegality and evil."(DP: 144) Speed, circuits and grids set up in open space.

Despite what he may think, Virilio is not therefore Foucault's adversary. Plugged together, the resultant theoretical hybrid has an enhanced sensitivity to the 'catatonia and rush' of the planetary system, the breaks and flows of global techno-capital. At the apex of this enclosure flow complex stands the figure of the postmodern city²², simultaneously regulator of flows and circulation, circuit *transformer or filter*, in Deleuze & Guattari's words, "interior spaces, which allow analysis, prolongation, or restitution of movement."(ATP: 558) So instead of their conceptual schemas excluding each other, it will be argued that the Virilio - Foucault 'hybrid' theoretical entity slides down a diagonal occupied by Deleuze & Guattari's *Capitalism & Schizophrenia*, topologizing the 'carceral continuum', twisting seeming interiority into a form of

exteriority with "confinements and interiorizations being only transitory figures on the surface of these forms."(F: 43) This 'machinic postmodernism' is primarily a counter-fascist strategy. As Deleuze & Foucault point out in the conversation entitled 'Intellectuals and Power', theory does not feed down to practice but rather accompanies it on a horizontal plane. Theoretical practice and practical theory. More than any other aspect, it is this element which brings these thinkers together. Virilio's *Speed & Politics* attempts to problematize the thanatocratic elements of the descent of Western Culture into nihilism by revealing the fascism intrinsic to the 'militarized' conception of 'speed' which has dominated Occidental strategic thought²³. Meanwhile, Foucault's analysis of dispersive power develops the molecular conception of fascist libidinal investment and mini-despotism which emerged from Deleuze & Guattari's *Anti-Oedipus*. In his Preface Foucault would therefore refer to that book as *an 'Introduction to the Non-Fascist Life.'*(AO: xiii)

Yet it will also be seen that Deleuze & Guattari go much further than both, simultaneously prizing away 'speeds' of a non-fascist nature and twisting the Foucauldian category of 'resistance' into a

²² following Mike Davis' analysis in particular, the postmodern city will be examined as an 'ecology of fear' in Sector 4.

²³ Sector 5 will examine Virilio analysis of speed and fascism through his discussion of Italian Futurist, Marinetti. This will be contrasted to Deleuze & Guattari's and Foucault's notion of microfascism and Theweleit's discussion of

productive 'schizopositive' process. It will be seen that through their analysis of the 'war machine' Deleuze & Guattari produce an 'ethics' strongly convergent with Chinese martial arts, which micro-engineers discipline into rhythm in continuous variation (a haptic tactics of speed). This, ultimately seems to sit uncomfortably with Virilio's general concern, mentioned above, to politicize speed as essentially fascist. However, for Deleuze & Guattari, whose analysis of the 'war machine' leans heavily on Virilio, it is, they argue, his description which makes it possible to differentiate distinct techno-populational velocities: they locate three: "(1) speeds of nomadic, or revolutionary, tendency (riot, guerrilla warfare); (2) speeds that are relegated, converted, appropriated by the State apparatus [management of the public ways]; (3) speeds that are reinstated by a world-wide organization of total war, or planetary overarmament [from the fleet in being to nuclear strategy.]"(ATP: 559)

The transition from surveillance to simulation can be clarified through Gilles Deleuze's short essay, *Postscript to Societies of Control*. Here Foucault's *Discipline & Punish* is taken as diagramming the phase shift from the abstract machine of *sovereignty*, to *discipline* and finally to *control*. Each of these modes corresponds to a machinic reality composed of the

the male 'mechanismo' poliorcetics. All the above will be flattened out to provide

predominance of specific technical machinery. Therefore, in the sovereign systems outlined at the beginning of *Discipline & Punish* in terms of the 'spectacle of suffering', the abstract dynamics correspond with simple machines, levers, pulleys and clocks. Disciplinary society entails a social mutation driven by the emergence of industrial, thermodynamic machines. Finally the 'post-disciplinary' 'societies of control' are characterised by cybernetic machines. If modern security complexes were constituted by an 'enclosure' network consisting of the prison (the analogical model of total enclosure), the factory, the hospital, the school and the family, etc., then postmodernity pushes these to a new extreme. As Deleuze describes it, "the various placements or sites of confinement through which the individual can pass are independent variables; we're supposed to start over again each time, and although all these sites have a common language, it's analogical. The various forms of control, on the other hand, are inseparable variations, forming a system of variable geometry whose language is digital (though not necessarily binary). Confinements are molds, distinct moldings, while controls are a modulation, like a self-transmuting molding continuously changing from one moment to the next, or like a sieve whose mesh varies from one point to another."²⁴

a cartography or flowchart of fascist desire.

²⁴ 178-179 in Deleuze, *Postscript to Societies of Control*, in *Negotiations*.

From the perspective of the respective apparatuses of security, each machinic mode of the state perceives its own specific dangers or threats. So for example, for Deleuze, disciplinary systems have as their "passive danger of entropy and the active danger of sabotage," while transformed by the new information technology, cybernetic control societies has as their "passive danger noise and the active piracy and viral contamination".²⁵ Umberto Eco perceives this transmutation in his discussion of the left-wing terrorism of the 1970s. In directing attacks at the head of States, "modern terrorism pretends (or believes) that it has pondered Marx, but in fact, even if directly, it has pondered Norbert Wiener on the one hand and science fiction on the other. The problem is that it hasn't pondered enough- nor has it studied in sufficient depth, cybernetics. . ." If it had, it would have, Eco argues, tuned revolutionary tactics to "erroneous bit of information inserted here and there, making work hard for the computers that run the place."²⁶ This failure, Eco concludes, signals that modern "terrorism is not the enemy of the great systems, [but] on the contrary, it is their natural counterweight, accepted, programmed. . . As it is headless and heartless, the system displays an incredible capacity for healing and stabilising."²⁷

²⁵ 180 in *ibid.*

²⁶ 115 in Eco, U. (1987) *Travels in Hyperreality*, London: Picador.

²⁷ *Ibid.* 116-117. Here Eco seems to converge with Baudrillard ([1983] *In The Shadow of the Silent Majorities*, NY: Semiotexte) whereby all guerrilla action is

1.2 cartography

In the late capitalist world system, the potential for conflict displaced to the periphery returns to the centre with accelerating velocity- the distinction between centre and periphery persist but in continuous transmutation. The topology of thought warps under the torque.²⁸ Instead of the 'equilibrical space of reason', turbulence returns and the shock of its disturbance warps the spatial-temporal order of 'conceptual peace' making it complex, forcing it to bifurcate and unwind. Postmodern thought is composed of unfamiliar and inexplicable folds, tears and gaps. In this situation of flux, Jameson reconfigures the aspirations of theory in a way convergent with the 'machinic postmodernism' to be developed below; "The political form of postmodernism, if there ever is any, will have as its vocation the invention and projection of a global cognitive mapping, and a social as well as a spatial scale."²⁹ Jameson's postmodernity is important for its materiality (being embedded in Mandel's long wave theory of late capitalism) and unlike many of his Marxist contemporaries, he seems at least to understand the project of *Capitalism & Schizophrenia*. Yet, just as

subject to immediate recuperation. Virilio and Baudrillard discussion of simulation society and terrorism will be critically examined in Sector 4 in relation to Deleuze & Guattari's 'guerrilla war machines.' Baudrillard makes a corresponding attack when he derides Foucault's conception of power and Deleuze & Guattari's 'desiring-production' and 'molecular revolution' as symptomatic of a modernity already outmoded, a socius already imploded, and its patterns of critical thought.

²⁸ My description here, mapping the global system onto the machinery of thought is intended to run alongside Deleuze & Guattari's notion of 'geophilosophy' in Pt.1.#4 of *What Is Philosophy* (1994) London: Verso.

he remained skeptical of Foucault's 'totalizing' conception of power (the standard misreading of *Discipline & Punish* which perhaps only Deleuze avoids fully, noting its convergence with topological science) he remains nostalgic for some lost critical distance. But most abstractly this 'continuum of war' and its machines can be described through Foucault's analysis of force and power.

This reluctance to 'let in' radical immanence crucially marks the point of divergence between his concerns and Deleuze & Guattari's. And the theoretical orientation of this cartography is more attuned to that which has been outlined by Deleuze & Guattari in their complex text, *A Thousand Plateaus*. As one commentator describes it, their "materialism is characterized by an horizontal interaction with empirical researches, deploying new syntheses to subvert transcendent epistemology and metapositionality, and thereby attuning itself to the computer-driven experimentation which is dissolving science and politics into bottom-up cultural engineering processes, with a concomitant thematization of complexity (far-from-equilibrium dynamics) and an initiation of intelligent war against dirigiste institutions."³⁰

A cartography of postmodern violence could never stop at the deconstruction of texts. It must involve a rigorous mapping of flows

²⁹ Op cit. Jameson 1984 93.

of matter-energy without normative reification. This is why Deleuze & Guattari employ Spinoza. It is because, as Deleuze points out, an ethics in Spinoza's sense is completely distinct from a morality; in fact any assessment of Spinoza in moral discourse (eg. egoism vs. altruism) misses the profundity of his philosophy.³¹ This is not the place to give a full account of Spinoza's thought, which will receive further treatment in Sector 5.3, except to mention the most important aspects taken up by Deleuze & Guattari are used for this cartography. What Deleuze & Guattari take from Spinoza's Ethics is a sense of radical immanence. Since for Spinoza there is only one substance, his thought offers a subterranean escape route, through parallelism, from the legacy of a Cartesian dualism which has subordinated matter to thought.³²

Spinoza strips his investigation down to an abstract cartography whereby the anthropomorphic is treated like "an investigation into lines, planes or bodies"³³ on a single plane called 'Substance', 'Nature' or 'God'. Deleuze & Guattari term this univocal topological surface the 'plane of consistency', the 'machinic phylum' and the 'body without organs'. Along these lines, Deleuze describes the operations of mapping as "untangling these lines within a social

³⁰ Op cit. Land 1995 133.

³¹ See Deleuze's work entitled Spinoza: Practical Philosophy especially chapter 2.

³² Hence Deleuze for example points to a subterranean undercurrent of modern philosophy, from Spinoza through Nietzsche. For Negri, this underground river of thought runs through Machiavelli, Spinoza and Marx.

³³ 103 in B. Spinoza (1992) The Ethics, London: Hackett.

apparatus, is in each case, like drawing a map, doing cartography, surveying unknown landscapes. . .one has to position oneself on these lines themselves, these lines which do not just make up the social apparatuses but run through it and pull at it, from North to South, from East to West, or diagonally."³⁴ At their most Spinozist, they provide the tools for a planetary cartography of violence on the body of the earth. A 'body' can take on a variety of meanings, it "can be anything; It can be an animal, a body of sounds, a mind or an idea; it can be a linguistic corpus, a social body, a collectivity."³⁵ A planet? A body in this sense correlates to what Deleuze & Guattari term an 'assemblage' and can be defined in the Spinozist sense as an agglomeration of vectors of speed and slowness, a dense point in a complex of lines. In the fluid landscape of the 'plane of consistency' or 'nature', a body stands only as a transitory figure of relative solidification. This background explains why the laboured issues of moral and political philosophy, become for 'machinic postmodernism', fundamentally questions of practical fluid mechanics or an 'ethics of speed'.³⁶

"A body is not defined by the form that determines it nor as a determinate substance nor by the organs it possesses or the

³⁴ 159 in M. Foucault: *Philosopher*, trans. T. Armstrong, Harvester: Wheatsheat from M. Foucault Centre Conference, Paris, Jan. 1988.

³⁵ 128 in Deleuze, *Spinoza: Practical Philosophy*.

³⁶ This will be the topic of Chapter 5 which develops an ethics for 'machinic postmodernism' through Irigaray's fluid mechanics, Spinoza's ethics and Taoist martial philosophy.

functions it fulfils. On the plane of consistency, a body is defined only by a longitude and a latitude.”(ATP: 260) It is necessary to specifically delineate what is meant by these terms ‘longitude’ and ‘latitude’- they do not correspond to ‘geographical’ axes as such, although their relation to these is a complex and interesting area.³⁷ Rather they are tools for mapping radical immanence, and as such allow this cartography to side-step the epistemological trauma which seems to characterize most depictions of postmodernity- it seems, for example, that Jameson’s call for ‘cognitive mapping’ or ‘social cartography’ contains a mournful tone. For him it seems the only possible task in a postmodern condition of semiotic flux, offering a minimal degree of navigation through turbulence. Deleuze & Guattari’s cartography, however seems to move towards a much more positive notion of cartography as a creative and

³⁷Deleuze & Guattari refer to a geographical longitude and latitude, one which has arisen out of the possibility, pragmatics and striation of global navigation and orientation. “. . . before longitude lines had been plotted, a very late development, there existed a complex and empirical nomadic system of navigation based on the wind and noise, the colours and sounds of the seas; then came a directional, preastronomical or already astronomical system of navigation employing only latitude, in which there was no possibility of ‘taking one’s bearings,’ and which had only portmanteaus lacking ‘translatable generalisation’ instead of true maps; finally, improvements upon this primitive astronomical navigation were made under very special conditions of the latitudes of the Indian Ocean, then of the Elliptical circuits of the Atlantic (straight and curved spaces). It is as if the sea were not only the archetype of all smooth spaces but the first to undergo a gradual striation in one place then another, on this side then that. The commercial cities participated in this situation, and were often innovators; but only the States were capable of carrying it to completion, of raising it to the global level of a ‘politics of science’. A dimensionality that subordinated directionality or superimposed itself upon it, became increasingly entrenched.”(ATP: 479) On this map, navigational possibilities are demarcated by the subdivision of territory into nation states, which taken together form a megamachinic skin which surrounds the planet, striating continental surfaces, oceanic surfaces and depth, and atmospheric altitudes which extend to the orbits of satellites and which suck in remote-sensed data feeding it into (GIS)

connective practice 'in itself'. Perhaps the most important reason for this is that they place themselves in a lineage of thought for which transcendence was only ever an illusion, even if it is an illusion enforced by a whole complex of power.

'Longitude' and 'latitude', then, provide a method for mapping the materiality of a body as variously defined above. As Deleuze & Guattari illustrate; "Latitude is made up of intensive parts falling under a capacity, and longitude of extensive parts falling under a relation."(ATP: 257) Together, these 'axes' constitute a plane which is "always variable and is consistently being altered, composed and recomposed, by individuals and collectivities."(SPP: 128) Stripped down to these base dynamics, there is "nothing but affects and local movements, differential speeds."(ATP: 260) They expand further. The *longitude* of a body is the "sum total of the material elements belonging to it under a given relation of movement and rest, speed and slowness."(ATP: 260) It constitutes the "set of relations. . .between particles that compose it from this point of view, that is, between *unformed* elements. . ."38 The longitude is the "aggregates belonging to that body in a given relation; these aggregates are part of each other depending on the composition of the relation that defines the individuated assemblage of the body. . ."(ATP: 256-7)

The *latitude*, on the other hand, is the “sum total of the intensive affects it is capable of at a given power or degree of potential,” it is “the set of affects that occupy a body at each moment, that is, the intensive state of an anonymous force (force for existing, capacity for being affected)”(ATP: 260) It is that which a body can do, its modal power within the limits of that degree.

These are difficult notions to grasp in the abstract. However, as a point of clarification, it is important that ‘longitude’ and ‘latitude’ as defined above should not be conceptualised as Cartesian axes which map points or co-ordinates on a ‘striated’ grid-work. Rather, the question should be pushed further back. It then becomes an issue of how ‘striated’ or controlled space is produced, i.e., what diagonal is forced to undergo a bifurcation whereby it is split into two poles in reciprocal presupposition. In *A Thousand Plateaus*, ‘latitude’ corresponds to the intensive and ‘longitude’ to the extensive. But these relations of speed and slowness, motion and rest undergo further differentiation as the level of scale shifts. Moving in from the ‘plane of consistency’, through its attributes to the modifications which are its expression, the concept of longitude bifurcates maintaining the trans-scalar self-similarity essential to Deleuze & Guattari’s chaos physics of war. The distinction made is

in geophysical, biochemical and socio-technical tectonics.

between 'speed' and 'movement'. While longitude is extensive at a more fundamental level, within the concept, *speed* is *intensive* and *motion* *extensive*. Again it becomes the difference between an abstract line of speed, and point to point movement. Movement here, is in a sense measurable speed. On a Cartesian axis designating space-time, where the vertical y-axis traces distance and the horizontal x-axis time, speed is measured by dividing the distance covered by the time taken. This measured speed, Deleuze & Guattari wish to designate movement. This is an important point because, in their analysis of the 'war machine', to be detailed in the next section, they argue that its fundamental essence is its relation to speed. And in distinguishing this from what Virilio pinpoints as the 'fascism of speed', it becomes crucial to understand that for them, "a movement may be very fast, but that does not give it speed; a speed may be very slow, or even immobile, yet it is still speed. Movement is extensive; speed is intensive. Movement designates the relative character of a body considered as 'one', and which goes from point to point; speed, on the contrary, constitutes the absolute character of a body whose irreducible part (atoms) occupy or fill a smooth space in the manner of a vortex, with the possibility of springing up at any point."(ATP: 381)³⁹

³⁸ 128 in Deleuze, Spinoza: Practical Philosophy.

³⁹ The vortical dynamics of smooth or topological space will be discussed in Sector 2. This distinction between 'speed' and 'movement' will prove crucial in Sector 5 in demarcating nomadic speeds from fascist speed and speeds of the state. As we will see, for Deleuze & Guattari, the nomad war machine is characterized by 'intensive speed' and opposed to 'extensive movement'- hence

Instead of points on a grid-work (closer to what they call a 'tracing' than a map), Deleuze & Guattari always emphasise the lines of process. For them, cartographic immanence is always generated from within lines, "one slips in, enters in the middle: one takes up or lays down rhythms."⁴⁰ In this way, Jameson's apparent nostalgia for 'critical distance' is sidestepped, substituted by an *immanent* critique of interiority, of the modern rational subject and state apparatus whose transcendental orientation involves information processing through a surveillance grid along the axes of space and time- the tracing. The operation of the State and its technologies of control would function more in this way, like "a photograph or X-ray that begins by selecting and isolating by artificial means such as colourations or other restrictive procedures, what it intends to reproduce. . .[it] has already translated the map into an image; it has already transformed the rhizome into roots and radicles. It has organized, stabilized, neutralized the multiplicities according to the axes of significance and subjectification belonging to it. That is why the tracing is so dangerous. It injects redundancies and propagates them. What the tracing reproduces of the map or rhizome are only

their term, 'voyaging in place'. Virilio's discussion of speed and fascism quite clearly focuses on a glorification of extensive speed, the 'faster and faster' of Marinetti and his automobile obsession.

⁴⁰123 in Deleuze, *Spinoza: Practical Philosophy*.

impasses, blockages, incipient taproots, or points of structuration.”(ATP: 13)⁴¹

For Deleuze & Guattari, then, cartography topologizes the interiority of State and subject. It is an ‘active’ process as opposed

⁴¹ One contention of this cartography is a critique of simulation as mode of postmodern social control. In other words the deployment of digital cartography in control systems, GIS visualized data sets and techniques of hazard mapping (see for example Mark Monmonier’s *Cartographies of Danger* [1997 London: University of Chicago Press] in which he discusses simulations of tornadoes, floods, volcanoes and crime patterns) remain in a framework of representation which the Spinozist emphasis on immanent cartography attempts to bypass. We can see clearly, in the following example, how striation functions in cybernetic societies. Aerial views of megalopian core zones digitalized, superimposed with a couple of keystrokes by isopleth maps arrayed over the street scape- three dimensional map whose undulating ridge normally illustrate levels of rainfall in a given area. While criminological research boasts its reflexivity with more sophisticated statistical probability software packages, the computer state has been dragged into the virtual, with emergency literally internalized and perpetual in high resolution chaos management graphic simulation systems. Before the development of geographic profiling systems, computer mapping applications in police work had been limited to graphically displaying the site of crimes such as armed robbery and car theft in a given city or neighbourhood- these were essentially elaborate pin maps helpful for throwing simple crime patterns into relief and deciding where to allocate police resources. In geographically profiling systems however, flows of criminality are tracked across the irrigated grid of state space. Noise and turbulence in channelled flow feed the strata, which, processing the excitation as a clear signal, produces what is consumed, i.e. and abstract and projected flow of criminality; the productive aspect of power generates new objects for the deployment of power. The local glows with the traces of short-circuits. At first glance the spots look randomly distributed, illustrating the geographical pragmatics of the offender. The computer first draws a box around the area of the crime sit and divides it into a grid. Starting with a randomly chosen point on a grid, it determines the distance from that point to the first crime site. Using an equation that takes into account criminological research on average distance from residence to crime, the program calculates the possibility of that point being the offenders home. It then repeats the process for every point of the grid and every crime site. The result is a three dimensional tracing expressing the probability of offender residence. Or instead of the isopleth image, the same information can be transformed into a chloropleth image covered with coloured bands used on geothermal maps to show extremes in temperature. These hot zone tracking systems have particularly been developed for serial killer manhunts. In the phase transition from the traditional theopolitical authorization or legitimacy to an impersonal, cybernetically automated efficiency, the ‘psychopathic murderer is both the final justification of law and the point of transition to pathology, from the criminal soul of political societies to the software disorder of commodity phase population cybernetics.”(115 in N. Land (1991) ‘After the Law’ in A. Norrie (ed) *Closure or Critique*, Edinburgh University Press.

to a 'passive' tracing; "what distinguishes a map from a tracing is that it is entirely orientated toward an experimentation in contact with the real. . .[t]he map does not reproduce an unconscious closed in upon itself; it constructs the unconscious. It fosters connections between fields, the removal of blockages on the body without organs onto a plane of consistency."(ATP: 12) As should be obvious from this description, 'cartography', for Deleuze & Guattari is a pragmatic process as opposed to a representation of a terrain- it is in this conceptualisation co-extensive with the field of forces to be mapped; "the map is open and connectable in all its dimensions: it is detachable, reversible, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, reworked by an individual group or social formation. It can be drawn on a wall, conceived of as a work of art, constructed as a political action or as a meditation. . .A map has multiple entryways, as opposed to the tracing, which always comes back to the same."(ATP: 12)

This methodology now will be deployed specifically to mapping the surface of the earth, the configurations of postmodern violence and turbulence in the global system. In what way does Deleuze & Guattari's notion of 'cartography' provide the instrumentation for this mapping? Most importantly, it is finely tuned to tracking systemic fluctuations from order to chaos to order, the dynamics of

change and continuity. As we will see later, in its connection to the 'war machine', their cartography is a diagram of turbulence, emergent order from chaos. This orientation is crucial for two reasons. Firstly, the space of war is intrinsically unpredictable, so any normative reifications in the diagram can only produce unnecessary, unrealistic and idealist rigidity to the map. Following Deleuze & Guattari's cartography, there is a real distinction between Spinoza's *Ethics* (and Deleuze & Guattari's appropriation of this in terms of the 'longitude' and 'latitude' detailed above) and moral discourse. Any criteria for action remain strictly immanent to the cartography as opposed to hardening its content into a selective representation. Secondly, the space of postmodern violence, and simulation society in general is radically complexified by the invention of the computer and its concretisation of virtual reality. If postmodernity is characterised by a blurring of the actual and the virtual, this is the case nowhere more than in military cybernetics. As Jean Baudrillard describes it, in his controversial text on the Gulf War "the space of war has become definitively non-Euclidean."(GW: 50)

As will be seen later, the space of war, for Deleuze & Guattari is by definition always aligned to dark zones escaping the eye of power. As such, the history of war is simultaneously the history of the

desert, the ocean, the atmosphere and now cyberspace⁴². Cyberspace is not the promised land but a battleground. The movement of 'bodies' in these 'uncontrolled spaces' are dictated by a dynamics of 'emergent order from chaos' or the vortical dynamics of turbulence. Therefore, a cartography of postmodern violence views the surface of the earth as scattered by eddying patterns among populations, from the micro-scale of interpersonal violence, through the street disorder of rioting, to guerrilla conflict and interstate military operations. It is these processes which Deleuze & Guattari's cartography of war is tuned to map.

1.3 Violence

In mapping 'postmodern violence', use will be made of Deleuze & Guattari's conception of the 'war machine', a complex notion which, in its explication, constitutes what I will refer to as a 'continuum of war.' This 'war machine' has the explanatory power of being able to topologize practically everything referred to as 'violence', moving beyond a mere deconstruction of the law into the specific designation of modes of bio-technical consistency. As Deleuze & Guattari point out in relation to the theoretical importance of their conception, "the war machine has many varied meanings, and this

⁴² Disturbing this rigid planetary tracing run transversal flows. Modern capitalist investment in technology involves several phase shifts as the war machine locks onto a plateau across which it slides. Sea space is gridded into longitude and latitude. Air space demands the vertical extension of the fractal coastline of geopolitical glacies. In cybernetic postmodernity, the instantaneous information

is precisely because the war machine has an extremely variable relation to war itself. The war machine is not uniformly defined and comprises something other than increasing quantities of force.”(ATP: 422) This machine or continuum of war is strung out between two poles: “*at one pole*, it takes war for its object and forms a line of destruction prolongable to the limits of the universe. But in all shapes it assumes here- limited war, total war, world-wide organization- war represents not at all the supposed essence of the war machine but only, whatever the machine’s power, either the set of conditions under which the States appropriate the machine, even going so far as to project it as the horizon of the world, or the dominant order which the States themselves are now only parts. The other pole seemed to be the essence; it is when the war machine, with infinitely lower “quantities”, has as its object not war but the drawing of a creative line of flight, the composition of a smooth space and the movement of people in that space. At this other pole, the machine does indeed encounter war, but as its supplementary or synthetic object, now directed against the State and against the world-wide axiomatic expressed by States.”(ATP: 422)

The first step, then, in configuring the relationship between postmodern violence and Deleuze & Guattari’s ‘war machine’ is to

processing gives the war machine the ultimate fuel injection. Pure war. Pure

explicate its particular relation to violence. This will entail a brief and selective run through of this conception of the 'war machine' in *A Thousand Plateaus*. As we will see this relationship is complex. 'War', in their use, is not simply synonymous with violence but involves a dynamical interaction between a bio-technical assemblage and the space in which it operates. This is why, in its most general terms, their definition of the 'war machine' involves its abstract relation to two connected issues- 'speed' and the 'constitution of a smooth space' both of which have already been mentioned above. Taking the emphasis on 'speed' from the work of Paul Virilio, their analysis of violence is strictly materialist- dissolving the moral, political and juridical problems which have occupied State philosophy since Plato into a cartography of movement, flows of matter-energy, the modes of composition of social assemblages, their power relations and degrees of stratification. In this sense, and although both Deleuze & Guattari and Virilio take it much further, both follow the profound insight of ancient Chinese war theorist, Sun Tzu, who emphasised over two millenia ago that "speed is the essence of war"(AW: 134).⁴³ This will lead Virilio, in *Speed & Politics* to formulations such as the following; "The time has come, it seems, to face the facts: revolution is movement, but movement is not revolution. Politics is only a gear shift, and revolution only its overdrive: war as

speed.

'continuation of politics by other means' would instead be a police pursuit at greater speed, with other vehicles."(SP: 18) We see here how the operations of the State and its branches of the military, police, prisons, courts etc. can be viewed in terms of their regulation of the movement of bodies in space. Moreover, in this depiction, revolutionary action becomes an intervention into the flows of a regulated system, an attempt to release certain vectors perhaps locked into closed circuits. But most importantly here, Virilio here concurs with Deleuze & Guattari and Foucault by reversing the famous Clausewitzian formula that *'war is a mere continuation of politics by other means.'*⁴⁴ War for Clausewitz was "an act of violence intended to compel our opponent to fulfil our

⁴³ Sun Tzu diagrams a flow chart of war which will be fundamental to the analysis in Ch.2.

⁴⁴ C. V. Clausewitz (1968) *On War* London: Penguin. In fact one crucial factor of this cartography of postmodern violence is the replacement of Clausewitz's outlook to that of Sun Tzu, a transition which is evident in any military or business academy. "After many centuries of inspiring kingmakers, general and spies, Sun's message was lost on the nineteenth century's Clausewitz, Moltke, and the iron generals of Total War, who were to fascinated by industrial technology, military hardware, logistics, and sheer destructive power. . . Nevertheless, much of what Clausewitz admired about Napoleon's use of paramilitary units, surprise and evasion probably came from the Corsican's early reading of the first Western translation of Sun Tzu by JJ Amiot, a French Jesuit scholar in China, which was in circulation in Paris when Napoleon was a young officer. This preference for cleverness over brute force has earned Sun Tzu a prominent place ever since on the bookshelves of diplomats, generals and corporate planners. Filled with terse and provocative aphorisms, the Art of War is as closely studied by Asian investors and businessmen today as it was earlier by Mao Tse- Tung, Ho Chi-minh and Vo Nguyen Giap. The Japanese say 'politics is business.' If the market place is a battleground, requiring strategy and tactics, Sun Tzu wrote the Bible."(Sterling Seagrave, *Lords of the Rim*, 1995, 45-46) A much more sympathetic reading of Clausewitz's version war dynamics is that of Alan Beyerchen in 'Clausewitz, Nonlinearity and the Unpredictability' (in *International Security*, Vol. 17, No.3, Winter 1992/93, pp59-90) who emphasises strains of complexity in Clausewitz's abstract machine which problematises a simple opposition between political rationality and the chaos of war. However, unlike Deleuze & Guattari, Foucault and Virilio, the 'real'

will" and violence here is defined as "physical force (for there is no moral force without the conception of States and Law)"⁴⁵ This definition has much in common with the basic definitions of war and violence in State philosophy, where violence or physical force serves as a means subordinated to rationally codified objectives, thereby constituting a whole tracing of the socius in terms of the imperative of the State to 'order' the 'chaos' or war. In this way as Deleuze outlines, "as the postulate of legality, State power would express itself in law, where the latter is conceived either as a state of peace, imposed upon brute force or as the result of a war of struggle won by the stronger party, but where in either case law is defined by the forced or voluntary cessation of war, in contrast to illegality, which it defines by way of exclusion."(F: 29) Now, as we shall see, for Deleuze & Guattari, Foucault and Virilio, in postmodernity, once nation-states have become merely components in a planetary nuclear-cybernetic complex, this formula of Clausewitz's is inverted so that politics become the continuation of war by other means.

Clausewitz runs an 'ideal' concept of war distinct from actuality in the sense that 'overthrowing' the enemy is tantamount, irrelevant of any socio-economic or political factors. War, here, is like an abstract charge or current, "like tensions of two elements still apart

implications of the concrete reversal of the Clausewitzian formula remain

which discharge themselves in small partial shocks. But what is now the non-conducting medium which hinders the complete discharge? Why is the philosophical conception not satisfied?"⁴⁶ In actuality, Clausewitz remarked that war is subordinated to the aims of the political State, which gives war its 'object' or aim, or in Deleuze & Guattari's terms, appropriates it to its own ends. They reframe this argument as follows; "States are better or worse 'conductors' in relation to absolute war and condition its realization in experience."(ATP: 420) Within the parameters of politics, for Clausewitz, the conduction of this war 'charge' can tend towards that 'absolute' or 'pure' concept with the annihilation of Total war. Or where the conduction meets more resistance, the absolute concept is limited and is manifested merely in armed posturing. The 'continuum of war', along one axis anyway, is composed of ascents and descents, escalations and de-escalations.

The Clausewitzian formula remained hegemonic throughout modernity. But now, there seem little reason to concur with its theoretical formulations. In particular, there seems little reason to accept the premise that the essence of war is to 'overthrow' the enemy. The fully abstract cartography provided by Deleuze & Guattari, which like Sun Tzu, seems to emphasise the 'lines of

unsatisfactorily explicated.

⁴⁵ Ibid. 101.

⁴⁶ Ibid. 369.

hydraulic intricacy⁴⁷ thereby dissolving war, as Toffler mentioned above, out of the solid-state stand-offs of a Newtonian physics of nation states. However, what Deleuze & Guattari wish to maintain from Clausewitz's analysis, is this 'pure' notion of war. But instead of an ideal charge which requires States for its actualization or 'conduction', Deleuze & Guattari want to give it a concrete reality independent of States, even fundamentally in opposition to their mode of composition. It is only through the conduits and dams of State politics and law that war could solely consist of 'square-offs', 'head to heads' and confrontation in the manner of billiard balls colliding with each other.

In their topology of this continuum of war, Deleuze & Guattari unfasten its teleology in three stages, with each step moving it towards a kind of 'ethics' of collectivity⁴⁸. (i.e. the cartography of the 'war machine', its relations of speed and slowness and its power, lies fundamentally in opposition to the State and its mode of hierarchical social relations (stratification), its appropriation and militarization of war, its constitution of individual ego-centred subjects (interiorization) and its control over space (striation and reterritorialization). Firstly, Deleuze & Guattari address whether war necessarily takes 'battle' as its object. They give the examples of guerrilla warfare, the war of movement and nuclear deterrence,

⁴⁷ 150 in N. Land (1992) *The Thirst for Annihilation*, London: Routledge.

all martial modes in which both 'non-battle' and 'battle' can be the object of war. But zooming out from this they ask whether 'war' is necessarily the 'object' of the war machine. But as they go on to describe, what they mean by the war machine is an assemblage that is only given violence as its object; it has a 'supplementary', 'synthetic' or 'second-order' relation to war. In fact if the 'war machine' has an essence, it is the constitution of a 'smooth space' as opposed to the 'striated' space of the city or State, the 'polis'. This is to say, for Deleuze & Guattari, the essence of the 'war machine' is the "occupation of this space, displacement within this space, and the corresponding composition of people: this is its sole and veritable positive object."(ATP: 417) So they push the question of the relation between the 'war machine' and 'violence' back even further to ask the degree to which the 'war machine' is the 'object' of the State apparatus. Here, we eventually get to the heart of the matter; it is only after it has been given its negative object, 'war', that its system is pushed towards the pole of actual battle. And this makes the destruction of obstructive stratification a secondary process, the primary one concerning the adherence to 'smooth space'. The State, or in their terms, the 'apparatus of capture' constitutes a spatial system of brakes and amplification; this means that "it is at one and the same time that the State apparatus appropriates a war machine, that the war machine takes

⁴⁸ This 'ethics' will be the focus of Sector 5.

war as its object, and that war becomes subordinated to the aims of the State.”(ATP: 418)

Their analysis of the ‘war machine’, therefore primarily points to a mode of collective composition without transcendent authority, a centre of power or social stratification. It is a fluid formation, flat with its terrain, turbulent in dynamic. It is almost as if the operation of the State, in its attempt to solidify fluidity, triggers reactions in the ‘war machine’ which we might commonly recognize as violence. But as they continuously emphasise, such collective movements, “*make war only on the condition that they simultaneously create something else.*”(ATP: 423) It is in this way that Deleuze & Guattari’s critique of violence proceeds. As in their depiction of ‘cartography’, the ‘war machine’ as a concept contains within its elucidation, a collective pragmatics, not a moralistic critique of violence, but rather and more fundamentally, a critique of the State-form and all of its microcosms of normalization. Indeed, one could argue that their analysis of desiring-production in *Anti-Oedipus* works in a parallel manner to that of the ‘war machine’ in the sense that it is, in itself, a threat to late capitalist social organization.⁴⁹ Anyway, the status of this claim about

⁴⁹ In fact it is Deleuze & Guattari’s notion of the revolutionary nature of desire which will ultimately lead to Baudrillard, for example in *Forget Foucault* (1987) NY: Semiotexte, to attack them for remaining caught within a modern framework of liberation, production, representation. . .

revolutionary desire and its opposite, fascist desire, which will be the focus of Sector 5.

As mentioned above, the cartography of violence which can be extracted from Deleuze & Guattari's work, requires them to engage a variety of concepts to encapsulate immanence, in particular 'the plane of consistency' and the 'machinic phylum'. Moreover, in his text on Foucault, Deleuze develops the important and parallel notion of 'topology' which does similar work. These radically Spinozist concepts, make it possible to think abstraction in a materialist manner, and this is fundamental to this above discussion. This is because for the inversion of the Clausewitzian formula to be anything more than evidence of the reversibility of linguistic signs, that is, for it to have real content, a conception of an 'idea' which is both 'real' and non-actual or 'virtual' is required. In this sense, when Deleuze & Guattari discuss the 'nomad war machine' as a 'war machine' which does not have war as its object, what is meant is not just one type of realization of the pure idea of war, "but on the contrary, the content adequate to the Idea, the invention of the Idea, with its own objects, space, and composition of the *nomos*." (ATP: 420) The nomads in this sense constitute an abstract but real immanence. The inversion of the Clausewitzian formula does not signify a crisis of representation which allows signifiers to float and oppositions to reverse. It strictly corresponds

to a real movement which sees the reversal of the relationship between the 'aim' and 'object' of war. In this sense what drives the reversal of the statement is the modern history of capital accumulation and acceleration and its wholesale investment in the means of destruction. This exponential gradient which charts the migration of war into the instantaneous 'silicon-time' of electronics, brings us back to the two poles between which the continuum of war is strung. The emergence of the modern European nation-state (in Foucault's terms, disciplinary societies) involved, most importantly the monopolization of force. Internally this involves the productive pacification or 'policing' of populations through analogous but distributed mechanisms of power- the military camp, the prison. . .But what this operation presupposes was a massive operation of legal codification not just of bodily activities within the state territory but regimentation of how war could be waged between states. Mercenary 'war machines' were not just hired by a central bureaucratic organization but 'appropriated'. The distributed 'war machines' of medieval Europe were 'appropriated' by the State, given war as their permanent object. The State took control of strategy or aim simultaneously restraining, through legal codification, the 'war machine' to limited war, and injected unprecedented amounts of constant and variable capital. Within the phase space of the State, war intensifies swinging towards the attractor of total mobilisation, thereby realising the full potential of

the captured war machine. At this pole, the aim of 'bringing down the enemy' is surpassed to total annihilation of not just the enemy's military, but its civilian population and economic infrastructure. This is Total War. But it is the advent of fascism, particularly in the form of German National Socialism, which constitutes the crucial turning point in the history of the 'war machine.' Here, according to Deleuze & Guattari, annihilation becomes suicidal; in an irreversible nose dive, the object of war becomes unlimited and its takes no aim other than itself- war for wars sake. The global system passes through an irreversible threshold. The Imperial Occident implodes in a black hole of genocide. As Guattari writes in acidic tone, "How moving it was to see the banners of capitalism and socialism intertwined against it! They would have us believe that there was a real antagonism between the fascist Axis and the Allies. In fact, what was really at issue was the selection of the right model. The fascist recipe got off to a bad start, and it must therefore be eliminated and replace with something better"(MPF: 225) Meanwhile, elsewhere the shock of two global wars and the corresponding capital investment in military science, pushes the human species past its limit point of total annihilation. The 'war machine' ceases once more to be a mere component of the State. In fact for Deleuze & Guattari "the appropriation has changed direction, or rather the States tend to unleash, reconstitute, an immense war machine of which they are

no longer anything more than the opposable parts. . .the post-fascist figure is that of a war machine that takes peace as its object directly [nuclear deterrence] as the peace of Terror or Survival. . .it forms a smooth space that now claims to control, to surround the entire earth. . .[it] has taken charge of the aim, world-wide order, and the States are now no more than objects or means adapted to that machine. . .[the] war machine. . .assumes increasingly wider political functions. . .(421). . .[it] takes on a specific supplementary meaning: industrial, political, judicial.”(ATP: 466)

Politics becomes war by other means. Pure war. As Michel Foucault states, this reversal “consists in seeing politics as sanctioning and upholding the disequilibrium of forces that was displayed in war. But there is also something else that the inversion signifies, namely, that none of the political struggles, the conflicts waged over power, with power, for power, the alterations in the relations of forces, the favouring of certain tendencies, the reinforcements etc. etc., that none of these phenomena in a political system should be interpreted except as the continuation of war. They should, that is to say, be understood as episodes, factions and displacements in that same war.”⁵⁰

Planetary capitalism is therefore shadowed by a multi-scalar ‘military-industrial-cybernetic’ complex, a continuum of war cutting

⁵⁰ 90-91 in Foucault, *Power/knowledge*.

through force fields on every strata, from micro to macro, expressed as localised chaosis or turbulence. Deleuze & Guattari point to four generally distinct economies of violence, the 'war machine' (in its nomadic sense), the State (monopolised force, legal violence, the police), struggle (inter-group conflict) and crime⁵¹.

⁵¹ In *A Thousand Plateaus*, Deleuze & Guattari distinguish between these four, at least abstractly distinct economies or regimes of violence. These differentiations will be elaborated on in the coming chapters. "*Struggle* would be like the regime of primitive violence (including primitive 'wars'): it is a blow-by-blow violence, which is not without its code, since the value of the blows is fixed according to the law of the series, as a function of the value of the last exchangeable blow, or the last woman to conquer, etc. Thus there is a certain ritualization of violence. War, at least when linked to the war machine, is another regime, because it implies the mobilization and autonomization of a violence directed first and essentially against the State apparatus (the war machine is in this sense the invention of a primary nomadic organization that turns against the State). Crime is something else, because it is a violence of illegality that consists in taking possession of something to which one has no 'right', in capturing something one does not have a 'right' to capture. But State policing or lawful violence is something else again, because it consists in capturing while simultaneously constituting a right to capture. It is an incorporated structural violence distinct from every kind of direct violence. The State has often been defined by a 'monopoly of violence', but this definition leads back to another definition that describes the State as a 'state of Law'. State overcoding is precisely this structural violence that defines the 'law', 'police' violence and not the violence of war. There is lawful violence wherever violence contributes to the creation of that which it is used against, or as Marx says, wherever capture contributes to the creation of that which it captures. This is very different to criminal violence. It is also why, *in contradistinction*, to primitive violence, State or lawful violence always seems to presuppose itself, for it pre-exists its own use: the State can in this way say that violence is 'primal', that it is simply a natural phenomenon the responsibility for which does not lie with the State, which uses violence, against 'criminals' - against primitives, against nomads- in order that peace may reign."(ATP 447-448) As opposed to deconstruction's dialectic driven obsession with the 'other', Deleuze & Guattari's theory of violence is based on an extended discussion of 'nomadism' as a mode of collective composition, pure multiplicity, which takes violence only as a second order object. Primary process, as discussed above and below, is crucially extra-textual, topological and asignifying and rhythmic. Their differentiation of these regimes of violence, as we will see later, maps onto their attack on uni-linear histories of progress which characterize Occidental State philosophy. In chapter 3, we will see how models of social evolution which suggest progressions out of primitive chaos are reworked by Deleuze & Guattari's non-linear universal history of capitalism.

The global condition begins to reconfigure distinct regimes of violence. It is the disorder thrown up by this transition which an abstract cartography of postmodern violence attempts to map. We are now in a position to examine these specific configurations which swirl on this war continuum, outlining their abstract dynamics, their differential speeds, their modes of composition and their assemblages of power.

sector 2. turbulence

2.1 turbulence simulation

“The landscape of contemporary war is that of a hurricane projecting and dispersing, dissipating and disintegrating through fusion and fission as it goes along.”(Paul Virilio)⁵²

As noted in Sector 1, Alvin and Heidi Toffler in their book *War & Anti-War* argue that postmodern violence can best be understood through what they call its ‘Prigoginian’ characteristics. In their seminal work *Order out of Chaos* to which Alvin Toffler wrote a wide-ranging, connective preface, physicists Ilya Prigogine and Isabelle Stengers theorise the *active matter* of systems ‘far from equilibrium’, drawing out some of the implications of a conception of *positive chaos*, a patterning which does not just constitute the negative of order, but rather the emergent properties of dissipative structures, i.e. *turbulence*. As they write in an oft quoted moment, “For a long time turbulence was identified with disorder or noise. Today we know this is not the case. Indeed, while turbulent motion appears as irregular or chaotic on the macroscopic scale, it is, on the contrary, highly organized on the microscopic scale. The multiple space and time scales involved in turbulence correspond to the coherent behaviour of millions and millions of molecules.

⁵² BA: 39.

Viewed in this way, the transition from laminar [i.e. nonturbulent or calm] flow to turbulence is a process of self-organization".⁵³

The concept of 'turbulence' points to the problematic outlined in Sector 1 concerning the consolidation of *simulation* as the dominant mode of control in cybernetic societies. This cartography prefers to denote that mode of control more specifically as 'turbulence simulation' in accordance with the insight that the "modern Human Security System might even have appeared with Wiener's subliminal insight that everything cyberpositive is an enemy of mankind. Evolving out of a work on weaponry guidance systems, his was an attempt to enslave cybernetics to a general defence technology against alien invasion. Cybernetics was itself to be kept under control, under a control that was itself not cybernetic. It was as if his thinking were guided by a blind tropism of evasion, away

⁵³ Prigogine & Stengers, *Order out of Chaos* 1985 41. As Swinney & J.P. Gollub put it, "Until recently, the practical definition [of turbulence] has been the appearance of apparent randomness in photographs of flows containing materials which permit visualisation of streamlines or other features. However, this approach omits the possibility of complex flow patterns that are nevertheless highly ordered." *Hydrodynamic Instabilities and the Transition to Turbulence* [New York: Springer-Verlag, 1981] p.1. Indeed recent turbulence theory agrees that turbulence is indeed not random, does not have infinite degrees of freedom and is not merely "structureless meandering" but rather "a well defined structure", an "order in the midst of chaotic motion." Trevor H. Moulden, "An Introduction to Turbulent Phenomena," in Walter Frost and Trevor H. Moulden, eds., *Handbook of Turbulence, vol.1, Fundamentals and Applications* [New York: Plenum, 1977], pp.25-26; Alexandre Chorin, "Lecture II: Theories of Turbulence," in A. Dodd and B. Eckmann, eds., *Lecture Notes in Mathematics: Turbulence Seminar, Berkeley 1976/1977* [New York: Springer-Verlag, 1977], p. 41. For a similar conclusion, see Trevor H. Moulden, Walter Frost, and Albert H. Garner, "The Complexity of Turbulent Fluid Motion," in Frost & Moulden, *Handbook of Turbulence* 1:3-4.

from another, deeper, runaway process: from a technics losing control and a communication with the outside of man."⁵⁴

Turbulence simulation as systemic imperative emerges precisely at the point at which Clausewitz's formula that 'war is the continuation of politics by other means' is reversed relegating the component states of the planetary system into mere conduits for a military-cybernetic machine. *Turbulence simulation*, or 'programmed catastrophe' as Deleuze & Guattari and Virilio phrase it, constitutes a war against positive feedback "quantizing it as amplification with an unvariable metric. . .[and]. . .establishing a cybernetics of stability fortified against the future."⁵⁵ And in one of the clearest statements of *turbulence simulation*, Virilio points out that in cybernetic society, "ecological catastrophes are only terrifying for civilians. For the military, they are but a simulation of chaos, an opportunity to justify an art of warfare which is all the more autonomous as the political State dies out. At this point, all civilian populations are helpless victims of the scam, of this ransacking of the world's resources." [PDES: 65-66]

"Violence is still- and always- in physics." [H: 124]

⁵⁴ Sadie Plant & Nick Land, 'Cyberpositive' in Matt Fuller, [ed] *Unnatural*. For an insightful discussion of Norbert Wiener's Cybernetics in the military context see P. Galison [1994] 'The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision' in *Critical Inquiry* #21.

⁵⁵ Sadie Plant & Nick Land, 'Cyberpositive' in Matt Fuller, [ed] *Unnatural*.

A cartography of postmodern violence at the level of primary process is a *physics*. This *machinic postmodernism*, as will begin to emerge in this chapter is also a *war hydraulics*. That is to say, it maps the continuum of war in terms of a 'generalised theory of swells and flows'. The outside of juridical-moral codification which cartography maps is a dynamic field of forces. Any differentiations of forces depends only on immanent consistencies and speeds of bodies, in the Spinozist sense described in Sector 1.2. If the primary process of the 'nomad war machine' for Deleuze & Guattari is not violence, then we need to be able, in terms of a *physics*, to illustrate the thresholds of collective assemblages over which they are pushed into supplementary conflictual dimensions. We need to be able, without mere recourse to an ideological analysis, to differentiate between general force fields and their local precipitations of violence. For this purpose we can make use of Michel Foucault's micro-physical cartographic tools and Virilio's *dromology* injected by the insights of chaos theory and complex fluid dynamics.

The emphasis in Foucault's physics is a differentiation between *power*, *force* and *violence*. Against a hegemonic structuralist Marxism, *power* for Foucault is not a mere symptom of ideology, carving up the population through violence and repression. Power is

distributed, dispersed and pervasive, flowing as a variable current through a capillary system or network of traffic flows. Power is the relational tension in a flowchart of forces. Violence signifies only a sub-selection of the vortical pockets in the parallel streams of micro-stratification, as Deleuze describes it, "violence expresses well the effect of a force on something, some object or being. But it does not express the power relation, that is to say the *relations between force and force*, 'an action upon an action'." [F 28] What Foucault's productive power, for Deleuze, shares with Marx and Nietzsche is a base materialism⁵⁶; 'force is never singular but essentially exists in relation with other forces, such that any force is already a relation, that is to say power: force has no other object or subject than force. . . violence [is] a concomitance or consequence of force, but not a constituent element. . . the relation between forces greatly exceeds violence and cannot be defined by the latter. Violence acts of specific bodies, objects or beings whose form it destroys or changes, while force has no object other than that of other forces, and no being other than that of relation. . . "[F: 70]

Coupled to Foucault's physics of forces, we shall engage Virilio's physics of speed which he repeatedly sets out as fundamental to understanding questions of violence. Virilio sets out a technical

⁵⁶the term 'base materialism' derives from Bataille and his general solar libidinal

definition of speed as "a transfer of energy; we can summarize this in two words: 'stability-movement' and 'movement-of-movement'. Stability: I don't move, I am still. Movement: I am in motion. I speed up: movement-of-movement. The passage from 'movement' to 'movement-of-movement' is a transfer of energy, what we also call an 'accident of transfer.' Once you start thinking in terms of energy, the problem of violence is immediately present." [PW: 33]

It is all too common for the discourse of war and violence to be saturated with metaphors of disorder and commotion. James Rosenau in his field stretching if uninspired book, *Turbulence in World Politics*⁵⁷ makes the case for 'turbulence' as an analytic concept as opposed to merely a suggestive metaphor. Compelling as *it may* be, an analogical use of 'turbulence' proves, he argues, only a hindrance to the enterprise of mapping postmodern violence. As a more concrete alternative, Rosenau points to the various branches of physics in which the sciences of turbulence have recently emerged and which recognize the omnipresence of turbulent dynamics across the continuum of the cosmos⁵⁸. As

economics.

⁵⁷ (1990) Princeton: Princeton University Press.

⁵⁸ Most flows occurring in nature and in engineering applications are turbulent. The boundary layer in the earth's atmosphere is turbulent. The boundary layer in the earth's atmosphere is turbulent [except possibly in very stable condition]; jet streams in the upper troposphere are turbulent, cumulus clouds are in turbulent motion. The water currents below the surface of the oceans are turbulent; the Gulf Stream is a turbulent wall-jet kind of flow. The photosphere of the sun and the photosphere of similar stars are in turbulent motion; interstellar gas clouds. . .are turbulent; the wake of the earth in the solar wind is presumably a turbulent wake. Boundary layers growing on aircraft wings are

Tennekes and Lumley remind us, the dynamics of turbulence can be abstracted out of researches into liquid instabilities because “turbulence is not a feature of fluids [only] but of fluid flows [generally].”⁵⁹ Some historical and theoretical background is therefore required to understanding the analytic application of ‘turbulence’ to Deleuze & Guattari’s conception of the war machine.

Turbulence is treated as one of the grand challenges of high performance computing at the end of the millennium. This is due to the massive complexity involved in simulating turbulent structures, where a flow behaviour at the most molecular scales can produce disproportionate effects over large distances. Coveney & Highfield intricately set out the problematic of *turbulence simulation* in physics whose abstract dynamics equally map onto a cartography of postmodern social control and its play of smooth and striated space;

“. . . Navier-Stokes equations describe the flow of continuous fluids; digital computers are inherently discrete, however, so they necessarily approximate these equations by dividing space and time into a grid and only take into account fluid behaviour at points on this grid. Thus, the computational fluid dynamicist faces a dilemma: if she subdivides space too far, then the time taken to

turbulent. Most combustion processes involve turbulence and often even depend on it; the flow of natural gas and oil in pipelines is turbulent. Chemical engineers use turbulence to mix and homogenize fluid mixtures and to accelerate chemical reaction rates in liquids or gases. The flow of water in rivers and canals is turbulent; the wakes of ships, cars, submarines, and aircraft are in turbulent motion. The study of turbulence clearly is an interdisciplinary activity, which has a very wide range of applications. . . [Furthermore,] many turbulent flows can be observed easily; watching cumulus clouds or the plume of a smokestack is not time wasted for a student of turbulence.” H. Tennekes and J.L. Lumley, *A First Course in Turbulence* [Cambridge: MIT Press, 1972], p.1.

⁵⁹ *ibid.* p3.

obtain a solution to the equations will be prohibitively long because she has a very great number of points to consider; but if she settles for a cut-off that is too coarse, . Then she will omit important details that affect fluid behaviour such as eddy structures. In fact, the time taken to perform a fluid simulation increases as a high power of the Reynolds number, a measure of propensity for apparent mayhem of turbulence. [The dimensionless Reynolds number is defined as the ratio of the inertial to the viscous forces: the weaker the viscous forces, the greater the tendency to turbulence. At values of the Reynolds number of order 100, flows are usually laminar; at values of order 1,000,000, flows possess fully developed turbulence; intermediate values indicate the transition regime between the two states- the onset of turbulent motion.[374]] At sufficiently high Reynolds values, the flow becomes turbulent and the Navier-Stokes equations are then a major headache to solve. Even though this is not, technically speaking, an intractable [NP] problem, for any reasonably sized problem on any existing computer it is impossible to consider Reynolds numbers above around 10,000, a value corresponding merely to the onset of turbulence, rather than the fully developed form."⁶⁰

Fundamental for 'turbulence simulation' were the initial moves of the computerised weather forecasting which emerged out of the general wave of control orientated cybernetics at the end of WWII, sweeping across the devastated flood plane of global warfare. Still overcoded by a Newtonian dreamscape of predictable and therefore controllable systems, chaos research remained confined in its implementation to controlling the newly accessed plane of positive chaos and becoming. With the prospect of machines capable of repeating huge numbers of calculations quickly, military driven research raced against the bomb clock in simulation war games which facilitated the warding off of massive thermonuclear warfare.

⁶⁰ 67 P. Coveney & R. Highfield, [1991] *Frontiers of Complexity*, London: Faber.

For von Neumann, early computing held the key to a future of climatic warfare; "Geodesic domes would cover cornfields, airplanes would seed the clouds. Scientists would learn how to make rain and how to stop it."⁶¹

The computerised complex system modelling initiated by Edward Lorenz in 1960, registered patterns that ebbed and flowed in the atmosphere, eddy clusters and cyclonic assemblages which always obeyed numerical rules concerning their immanent relationships of temperature, pressure and velocity but never repeated themselves.

⁶² Gleick describes how "To make the patterns plain to see, Lorenz

⁶¹ Gleick (1987) *Chaos*, London: Cardinal p18.

⁶² Let us track this atmospheric or fluid turbulence into digital code so as to be concrete about the processes involved in the onset of turbulence and its simulation. We can take cyclones as a strong example. As one commentator describes them, cyclones "are atmospheric machines that transform latent energy into angular momentum in a feedback process of potentially catastrophic consequence. Their condition of emergence are a warm water surface, a latitude of at least five or six degrees deviation from the equator, a pronounced instability in the air column or a low surface pressure, and the absence or virtual absence of wind shear. When these conditions coexist a cyclone can develop, over a period that normally lasts from four to eight days. A large cyclone transfers 3.5 billion tons of air an hour from the lower to upper atmosphere, and releases energy in the order of 10^{25} ergs every second. At the centre of the cyclone is a still zone of low pressure known as the 'eye' or 'core' which registers no radar echo and which functions as the immobile motor of the storm's angular momentum or expressed energy."⁶² The actual movement of air particles involves crowded flows in and out of each eddy around the eye just as particles of water flow in and out of a wave and moisture in and out of a cloud, whirlwinds in general arise from the meeting of two opposite or nearly opposite currents of air, the struggle for adjustment causing an eddy. A cyclone is a complicated vortex, similar to an eddy of water but different in the sense that the latter 'sucks down', while the air-vortex 'draws upward.' A huge irregular funnel of rotating air. Whether slight or strong, they always revolve around an axis of comparative calm, spiralling like a corkscrew inward and upward. A cyclone has two distinct motions. As the earth journeys through space, the cyclone travels across the earth's surface. As the solid body of the earth revolves upon its axis, so the winds of a cyclone revolve around its axis. The two movements of a cyclone may be illustrated by the two movements of a top. As the top spins upon its point, it also travels forward. It may spin fast or slowly; and it may travel fast or slowly. Each movement is independent. Within the cyclone, the

created a primitive kind of graphics. Instead of just printing out the usual lines of digits, he would have the machine print a certain number of blank spaces followed by the letter A. He would pick one variable- perhaps the direction of the airstream, gradually the A's marched down the roll of paper, swinging back and forth in a wavy line, making a long series of hills and valleys that represented the way the wind would swing north and south across the continent. The orderliness of it, the recognisable cycles coming around again and again. But never twice the same way, had a hypnotic fascination. The system seemed slowly to be revealing its secrets to the forecasters eye." ⁶³ Because his numbers were rounded off decimals, Lorenz found that the small errors fed into his system at initial stages cascaded catastrophically. The butterfly effect. Micro-localized singularities spiralling into multi-scalar turbulence. Chains of events constantly skirt points of crisis that could amplify small fluctuations. In weather systems, sensitivity to initial conditions accompanies the tight intertwining between small and large scales. Fast forwarding to the high resolution satellite imaging of contemporary planetary climatics, swarms of alphanumeric data print-out melt into vortices, whirlwinds, tornadoes and vast

direction of air circulation is dependent on global position. In the northern hemisphere, cyclones rotate around their axes in a counter-clockwise direction and clockwise in the southern. These rules are reversed in the case of the anti-cyclone. Here again we have an eddy or vortex or winds rotating round an axis, though the rotation is sometimes so languid as to be imperceptible. But the direction of the winds is exactly the other way from that of cyclones. Moreover, the spiral movement or the suck of an anti-cyclone is downward, like a water-

transcontinental cyclone systems. Digitized cyclones spin around a virtual globe. "The sun beat down through a sky that had never seen clouds. The winds swept across an earth as smooth as glass."⁶⁴ If postmodern control is based on the abstract machine of turbulence simulation, then the primary cybernetic interface in this condition is the computer screen. In conjunction with chaos physics, computerised simulation has been described by Da Landa as a 'window onto the machinic phylum.'⁶⁵ Indeed the precarious

eddy, instead of upwards in the cyclone. This results in a piling up of the air which helps cause a high barometer.

⁶³ 15-16 in Gleick.

⁶⁴ 11 in Gleick.

⁶⁵ Da Landa describes the abstract dynamics of modelling; "The machinic phylum remained largely invisible until the advent of the digital computers, or rather, considering how pervasive non-linear behaviour is throughout nature (it could hardly have escaped everyone's attention), we had to recognize it. Bifurcating sequences leading to complex behaviour had been 'observed' by mathematicians such as Henri Poincare as early as the 1890s- although those early glimpses into the wild spaces of the machinic phylum horrified most who saw them. Those passing glimpses have, with the proliferation of computers in mathematical investigation (giving rise to 'experimental mathematics'), opened onto vast landscapes- computers becoming our 'window' onto the machinic phylum in more than a figurative sense.

If computers have emerged as windows onto this world, it is because the non-linear mathematical models of bifurcation processes can be given a visual representation, a 'phase portrait.' The first step in creating a phase portrait is to identify the relevant aspects of the behaviour of the physical system to be modeled. It is impossible, for example, to model an oven by considering each and every atom of which it is composed, but one can consider the single aspect of the oven that matters; its temperature. Similarly, in modeling the behaviour of a pendulum, only its velocity and position are important. In technical terms, the oven has 'one degree of freedom,' its change in temperature; the pendulum, in turn, has two degree of freedom. A bicycle, on the other hand- taking into account the co-ordinated motion of its different parts (handlebars, front and back wheels, right and left pedal)- is a system with approximately ten degree of freedom.

The next step is to create an abstract space (called a 'phase space') that has as many dimensions as the system to be modeled has degrees of freedom. In this way, everything that matters about the system at any given moment in time can be condensed into a single point: A point in one -dimensional space (a line_ for the oven, a point in two-dimensional space (a plane) for the pendulum or a point in ten-dimensional space for the bicycle. Moreover, as the system changes in time (the oven heats up or the bicycle makes a turn), this point in phase space will also change, thus describing a trajectory. This trajectory, in essence, will contain all the information that matters about the history of the modeled

nature of postmodern violence, [whereby smooth space is orientated towards control] is captured in the image conjured by Deleuze & Guattari of the entranced control operative reduced to a mere switch in a planetary military cybernetics complex ; "When examining the new professions, or new classes even, now can one fail to mention the military technicians who stare into screens night and day and live for long stretches in strategic submarines (in the future it will be satellites), and the apocalyptic eyes and ears they have fashioned for themselves, which can barely distinguish any more between a natural phenomenon, a swarm of locusts, and an 'enemy' attack originating at any point?"[ATP: 480]

In physics, predictability has conventionally been based on Newton's equations of motion. Given the forces, specific initial conditions lead to specific well-defined orbits in a corresponding coordinate phase space. Laminar flow implies predictable behaviour in that stream lines which start off near each other, remain near to each other. Knowledge of motion at one point in the flow at one point in time implies knowledge of the motion at neighbouring points in space and time. However in the fluid dynamics of non-

system. For example, if the system under study tends to oscillate between two extremes, like a driven pendulum, its trajectory in phase space will form a closed loop, which represents a system whose 'movement' consists of a repetitive cycle. A free pendulum, on the other hand, which eventually comes to a standstill, appears in a phase portrait as a spiral. More complex trajectories will be represented by more complex trajectories in phase space." 136-137, M. Da Landa, 'Nonorganic Life' in *Incorporations*, NY: Zone. Simulation modelling

linear systems, actual fluid movements exhibit both orderly and chaotic flows, with the nature of the flow changing from laminar to turbulent as some parameter or combination of parameters increases through some critical value. In turbulent motion, knowledge of the motion at one location at one time conveys nothing about the motion at nearby points at the same time or at the same point at later times rendering prediction fundamentally impossible.

In such a system, as Deleuze & Guattari phrase it, "one no longer goes from the straight line to its parallels, in a lamellar or laminar flow, but from a curvilinear declination to the formation of spirals and vortices on an inclined plane: the greatest slope for the smallest angle."(ATP:) Here we see the importance for Deleuze & Guattari's turbulence physics of war of the *clinamen* or the *swerve*. On this notion they rely on Michel Serres' reading of Lucretius' *On the Nature of the Universe* where the seeds were nurtured for a conception of 'creative' or 'animated' matter [nonorganic life] as opposed to its inert caricatures in philosophical hylomorphism. Serres describes how Lucretius perceived the angular momentum of nature; "The minimal angle of turbulence produces the first spirals here and there. It is literally revolution. Or it is the first evolution toward something else other than the same. . .The first

through such procedures, it is, contended here, is the basic principle of

vortices. . .pockets of turbulence scattered in flowing fluid, be it air or salt water, breaking up the parallelism of its repetitive waves.”(H: 100-101)The atomists Democritus, Epicurus and Lucretius unlike the initiators of Occidental State philosophy Plato and Aristotle⁶⁶, set out to map the cosmos without introducing any conception of purpose or final cause and injecting it as essence of a thing. Lucretius outlines the importance of the *clinamen* as not merely deviation from order, but rather primary process eg. ‘When the atoms are travelling straight down through empty space by their own weight, at quite indeterminate times and places they swerve ever so little from their course, just so much that you can call it a change in direction. If it were not for this swerve, everything would fall downwards like rain-drops through the abyss of space. No collision would take place and no impact of atom on atom would be created. Thus nature would never have created anything.’⁶⁷.

As Deleuze argues, the *clinamen* is more than the insurgence of contingency into an ordered universe. Instead, idealism must be inverted so that order becomes a subset of diverse multiplicity. Again for Deleuze in the *Logic of Sense*⁶⁸, the *clinamen* is primary;

postmodern control.

⁶⁶ Virilio conception of programmed catastrophe as we shall see later rests on a critique and inversion of Aristotle’s physics of substance.

⁶⁷ 66 (1951) London: Penguin.

⁶⁸ (1990) London: Athlone.

“It is tied in a fundamental manner to the Epicurean theory of time and is an essential part of the system. In the void, all atoms fall with equal velocity: an atom is no more or less rapid with respect to its weight than other atoms which more or less hinder its fall. In the void, the velocity of the atom is equal to its movement *in a unique direction in a minimum of continuous time*. This minimum expresses the smallest possible term during which an atom moves in a given direction, before being able to take another direction as the result of a collision with another atom. There is therefore a minimum of time, no less than a minimum of matter or a minimum of the atom. In agreement with the nature of the atom, this minimum of continuous time refers to the apprehension of thought. It expresses the most rapid or briefest thought: the atom moves ‘as swiftly as thought’. But, as a result, we must conceive of an originary direction for each atom, as a synthesis which would give to the movement of the atom its initial direction, without which there would be no collision. This synthesis is necessarily accomplished in a time smaller than the minimum of continuous time. This is the *clinamen*. . .”⁶⁹

This *minimum* points to the inter-dimensionality of the fractal. Most importantly for Deleuze, this means that “*The clinamen or swerve has nothing to do with an oblique movement which would*

⁶⁹ 269 in Deleuze (1990).

*come accidentally to modify a vertical fall. It has always been present: it is not a secondary movement, nor a secondary determination of the movement, which would be produced at any time, at any place. The clinamen is the original determination of the direction of the movement of the atom. It is a kind of conatus- a differential of matter and, by the same token, a differential of thought [my emphasis]. . .*⁷⁰ Clinamen, line of fluid escape, line of flight, primary diagonal. The swerve.

So rather than an accident in the substance of flow, turbulence and self-organisation becomes the mode of composition out of which order is only a derivation. *Order out of Chaos*. In *A Thousand Plateaus*, Deleuze & Guattari map out this process of self-organization. "From *turba* to *turbo*, in other words, from bands and packs of atoms to the great vortical organizations. The model is a vortical one; it operates in an open space throughout which things-flows are distributed, rather than plotting out a closed space for linear and solid things, it is the difference between a smooth [vectorial, projective or topological space and a striated metric space; in the first place 'space is occupied without being counted,' and in the second case 'space is counted in order to be occupied'." [ATP: 361-362] The turbulent dynamics of the mechanosphere on this topological surface are mapped by Deleuze

& Guattari from an array of interlocking but never completely corresponding angles producing a whole discursive network of cartographic equipment- Smooth and striated space; Rhythm and meter; Self-consistent aggregates and strata; Rhizomes and trees; The plane of consistency and the plane of organisation; The nomad war machine and the state; Turbulent and laminar flow.

The common processes which make it possible to describe anthropomorphic dynamics alongside those of, for example, a flowing liquid or cyclone cannot be captured through linguistic representations alone. What brings seemingly diverse processes together is their abstract machine or their engineering diagram. Manuel De Landa gives a concrete example to help clarify what is at stake in the move made by machinic postmodernism beyond metaphorical analogy. "When we say [as Marxists used to say] that 'class struggle is the motor of history' we are using the word 'motor' in a purely metaphorical sense. However, when we say that "a hurricane is a steam motor" we are not simply making a linguistic analogy: rather we are saying that hurricanes embody the same diagram used by engineers to build steam motors, that is, that it contains a reservoir of heat, that it operates via thermal differences and that it circulates energy and materials through a [so called] Carnot cycle. Deleuze & Guattari use the term 'abstract

⁷⁰ibid.

machine' to refer to this diagram shared by very different physical assemblages. Thus, there would be an 'abstract motor' with different physical instantiations in technological objects and natural atmospheric processes."⁷¹

Typically, likenesses are drawn between war and environmental disturbance. Again while such discourse remains at the level of analogy, its cartographic utility remains limited. For this reason, Deleuze & Guattari in both volumes of *Capitalism and Schizophrenia* develop neo-materialist strategies for conceptualising the virtual continuum which underlies the nature/culture, environment/man dichotomies which have permeated anthropocentric thought. In *Anti-Oedipus*, for example, the key connector is their *machinism* and emphasis on *production*; "we make no distinction between man and nature: the human essence of nature and the natural essence of man become one within nature in the form of production or industry, just as they do within the life of man as a species. . . man and nature are not like two opposite terms confronting each other- not even in the sense of bipolar opposites within a relationship of causation, ideation, or expression [cause and effect, subject and object, etc.]; rather, they are one and the same essential reality, the producer-product." [AO: 4-5] Similarly, in *A Thousand Plateaus* and as we shall see below,

⁷¹ p2. Manuel De Landa, *The Geology of Morals: a neo-materialist interpretation*,

the 'machinic phylum' is a term which cuts through continuum of cosmic self-organizing processes, from geological tectonics to the paranoid neuroses of philosophers of the State. Massumi clarifies the issue further; "The physical and cultural worlds are an infinite regress of interlocking levels. Each level or stratum recapitulates mechanisms from the last on a larger scale, and adds new ones of its own. Every bifurcation to a new level has an essential element of randomness, giving our universe the diverging symmetry of a fractal figure." [UG: 54] In this way, perhaps the most fundamental question in mapping postmodern violence concerns the relation between order and disorder. It is the perspective of turbulence theory in this very issue that makes it so significant. It provides a new way of dealing with what Prigogine calls one of science's basic questions; "The famous law of the increase in entropy describes the world as evolving from order to disorder; still, biological or social evolution shows us the complex emerging from the simple. How is this possible? . . . We know now that nonequilibrium, the flow of matter energy, may be a source of order."⁷²

2.2 base turbulence

“Strategy is not only a form of dynamics or energetics but first of all a topology.”[H:107]

In the first volume of his Trilogy, *Civilization and Capitalism*, Fernand Braudel describes the nomad invasions of early modern Europe;

“they represented speed and surprise at a period when everything moved slowly. . . fortresses had to be equipped and stores laid in, and if there was still time, guns supplied, horsemen mobilized and barricades set up. . . The nomads strength also lay in the carelessness and relative weakness of the men who held the approaches to the civilizations. . . a physical law drew them now westwards, now eastwards, according to whether their explosive life would ignite more easily in Europe, Islam, India or China. Eduard Feuter’s classic work drew attention to a cyclonic zone, an enormous vacuum in 1494 over the fragmented Italy of princes and urban republics. All Europe was attracted towards this storm creating area of low pressure, in the same way hurricanes persistently blew the peoples of the steppes eastward or westwards, according to the lines of least resistance.[WAIM 96]

The materialist cartography of war developed by Da Landa demarcates 4 strata which cut across the continuum of war. We shall build upon our definition of the continuum of war by adding here that it constitutes an abstract material surface which connects the machines of war and their dissipative structures; “the level of weapons and the hardware of war; the level of tactics, in which men and weapons are integrated into formations; the level of strategy, in which the battles fought by those formations acquire a

unified political goal; and finally the level of logistics of procurement and supply networks, in which warfare is connected to the agricultural and industrial resources that fuel it.”[WAIM 5] Each of the simultaneously interconnected yet autonomous levels function as a vortex, holding its rough shape despite being submerged in an irregularly moving fluid. As Da Landa writes in relation to command systems in battle, it “must form an island of stability amid the surrounding chaos, an island created by the same forces producing the turmoil around it”[13]. Like turbulence in fluid dynamics, “the machines produced as the output of each level [weapons, battles, wars etc.] may be seen as the units of assembly for the next level up the scale.”[23] The function of the dissipative system is to drain off entropy [disorder, noise, heat, friction] by carrying it down to distributed local components, warding off its accumulation. So what brings a cartography of turbulence together with war is a shared abstract machine.

In a short essay in the science periodical *Nature*⁷³, Alvin Saperstein has outlined one way in which chaos theory has been applied to war. He develops a non-linear model of an arms race tracking institutions from stability to instability, from an arms race itself to war in terms of the transition from a laminar to a turbulent flow. Countering deterministic accounts of the outbreak of war,

Saperstein argues that "war can be viewed as a breakdown in predictability: a situation in which small perturbation of initial conditions such as malfunctions of early warning radar systems or irrational acts of individuals obeying orders lead to large unforeseen changes in the solutions to the dynamical equations of the model"⁷⁴ Saperstein asserts that there are thresholds which cut across spirals of escalation. As we have seen, such thresholds while being gateways into chaos should not merely be understood as random mess [the negative of order] but a zone of unpredictable innovation in which only the transcendental limits or degrees of freedom can be outlined.

In a similar vein, Deleuze & Guattari offer a 'nomad physics' of the war machine. Literally a perturbation to the homeostasis of State philosophy and its complementary physics of order, this 'nomad physics' is of a radically different nature. It provides a complex fluid dynamics less interested in forecasting than mapping lines of least resistance for pragmatic insurgency, following the *clinamen*, the *swerve*, lines of deviation and escape. It is a "a physics of packs, turbulences, 'catastrophes' and epidemics corresponding to a geometry of war, the art of war and its machines." [ATP: 490]

⁷³ Alvin Saperstein [1984] 'Chaos- a model for the outbreak of war', *Nature*, Vol. 309.

⁷⁴ 303.

State philosophy, state physics, state epistemes, stasis. The “state needs to subordinate hydraulic force to conduits, pipes, embankments which prevent turbulence, which constrain movement to go from one point to another, and space itself to be striated and measured, which makes the fluid depend on the solid and flows proceed by parallel, laminar layers.”[ATP 363] By understanding social dynamics from within the operating system of megamachinic complexes, i.e. the policed zone of interiority constructed on a fluid molecular field of exteriority, the programmatic imperative normalises order, being and identity as opposed to positive chaos and becoming. As Michel Serres puts it, “the world is in order, according to the mathematical physics in which the Stoics are met by Plato up the line and by Descartes further down, and where order reigns supreme over piles of cadavers. The laws are the same everywhere; they are thanatocratic. There is nothing to be learned, to be discovered, to be invented, in this repetitive world, which falls in parallel lines of identity. Nothing new under the sun of identity.”⁷⁵

The codificatory operations of the state and its forms of expression constitute an abstract irrigation plan. Intricately, Serres describes it as follows, “Classing is a succession of dams, a complicated arrangement of wickets, hierarchy is semiconductive, the gaps

⁷⁵ Serres 1982 100.

between subsets prohibit crossings, classing is there to disarm, to slow momentum be it creative or destructive, who can tell, to cool down its heatedness or slacken its celerity, complex classing encumber the bed of violence, or else. . . classing is formed by violence and the disorderly course of its flux, violence deposits it as a river lays down in passing its heavy or fine alluvial deposits, it deposits it, codes it, structures it, makes it, it looses some of its virulence along the circuitous route of its products. The gravel comes to a standstill in the gravel. Violence makes the classes and the classes unmake violence."⁷⁶ The State is built on its violence, a violence thrown up in the friction between flat modes of social composition and latent tendencies unleashed by capitalism towards absolute decoding and deterritorialization.

We can take a concrete example of the concept of 'turbulence' applied to violence and social unrest. This will place us in better position to understand the specificities Deleuze & Guattari's 'continuum of war'. When they take up Paul Virilio's conception of speed and differentiate its diverse manifestations, it is to distil certain modes out of Virilio's equation of speed with fascism. In light of this claim, it is necessary to probe some of their most basic claims about the morphology of the war machine. Importantly, Deleuze & Guattari state that "each time there is an operation

⁷⁶ Serres 1995 94.

against the State- insubordination, rioting, guerrilla warfare, or revolution as act- it can be said that a war machine has been revived, that a new nomadic potential has appeared, accompanied by the reconstruction of a smooth space or a manner of being in space as if it were smooth [Virilio discusses the importance of the riot or revolutionary theme of holding the street]."[ATP: 386] In this quote, they are pointing to Virilio's discussion *in Speed & Politics* where he makes reference to the revolutionary importance of 'holding the street.' "The revolutionary contingent attains its ideal form not in the place of production, but in the street, where for a moment it stops being a cog in the technical machine and itself becomes a motor [machine of attack] in other words a producer of speed." [SP: 3]

To clarify this, let us first briefly map out a 'socio-cyclonics' of the riot⁷⁷. There is perhaps no better resource with which to achieve this than Elias Canetti's fluid population dynamics diagrammed in his book, *Crowds & Power*. We see in this text self-organizing population dynamics and the vortical particles mechanics definitional of smooth space. Deleuze & Guattari draw from Canetti's work to distinguish various types of fluid collectivity, most notably the *mass* [crowd] and the *pack*. But it is important to recognize that there ^{are} two distinct definitions of a population *mass*

at work in *A Thousand Plateaus*. The two uses of a population *mass* concern firstly the relation of a *class* to a *mass*, and secondly of a *mass* to a *pack*. This first conception, as they underline is not to be understood through Canetti.[ATP 214] We shall deal with each in turn.

Instead of the 'motor of history', *classes* for Deleuze & Guattari are conceived as forms of social segmentarity operating by binary organization. They compose solid or rigidified 'molar' aggregates through relations of "resonance, conjugation or accumulation" through an "overcoding favouring one line over the others." [ATP 221] For Deleuze & Guattari, therefore, to argue that class conflict is the motor of history is to valorize the very binary oppositions of rigid segmentarity which set up *contradiction* as the base dynamic which is set in motion *dialectically* through a series of reactive manoeuvres. In a different context Land makes a similar point, arguing that between rigidity and fluidity, there is no dualistic opposition or structure; "There is no elemental duality at stake here, since this would involve a rigid difference transcending and dominating its terms, as if a typology, signifying system, or patchwork of language-games were extrinsically organizing base flows, in the manner of Wittfogels hydraulic bureaucracies⁷⁸. The

⁷⁷ This 'socio-cyclonics' will be used in Sector 4 to construct a cartography of the Los Angeles Riots.

⁷⁸ Wittfogels' hydraulic thesis will be discussed in Sector 3 as a flow chart of total power.

savage truth of delirium [in this context population turbulence] is that all ossification. . .is a unilateral deviation from fluidity, so that even bones, laws and monuments are crumbled and swept away by the deep flows of the Earth."⁷⁹

For Deleuze & Guattari, this first sense of *mass* provides a complex fluid model for base population flow. They set this out in *Micropolitics & Segmentarity*; "A social field is always animated by all kinds of movement of decoding and deterritorialization affecting 'masses' and operating at different speeds and paces. These are not contradictions but escapes. At this level, everything is a question of mass." [ATP 220] As opposed to the 'molar conjugation' of flows whereby they are stratified into hierarchical organizations and treated to generate "relative stoppage, like a point of accumulation that plugs or seals the lines of flight, perform[ing] a general reterritorialization" we have the primary process of 'connective, molecular multiplicity.' "At this level, everything is a question of mass" [220]. Of a more supple composition, the fluid escape of the *mass* from the *class* while looped up with channels of normalization is a more basic process. The fluid line of escape or the *clinamen*, is, as we have seen is only deviation if taken from the perspective of the norm. The important point is that it is the underlying mass which facilitates transversality between the

⁷⁹ Land 1992 128.

parallel channels of solidified identification and stability. "Mass and class do not have the same contours of the same dynamic, even though the same group can be assigned both signs. The bourgeoisie considered as a mass and as a class. . . The relations of a mass to other masses are not the same as the relations of the 'corresponding' class to the other classes. Of course, there are just as many relations of force, and just as much violence, on one side as the other. The point is that the same struggle assures two very different aspects, in relation to which the victories and defeats differ. Mass movements accelerate and feed into one another. . .but jump from one class to another, undergo mutation, emanate or emit new quanta that then modify class relations, bring their overcoding and reterritorialization into question, and run new lines of flight in new directions. Beneath the self reproduction of classes, there is always a variable map of masses." [ATP 221]

In other places however, Deleuze & Guattari make use of Canetti to, in a sense perform the same critical operation, the critique of the hierarchical population composition of the State form as opposed to more dynamic modes of collectivity. It is for this reason that the distinction is made between the *mass or crowd* in Canetti's sense and the *pack*. In a sense the two senses of mass reside at different zoom scales; if we zoom into the *mass* which we saw opposed to a *class*, we see a further differentiation of composition

into relative solidity and fluidity along a continuum of population velocity and density. In this way we can understand the dual use by Deleuze & Guattari of the concept of a molecular population mass. To be more exact, we can zoom in precisely on the very motor of angular momentum in masses of the first sense, the lines of fluid escape around which swarm collectivities of the pack type. We can also observe here, at this lower level of abstraction how such vortical pockets of activity dissipate and are absorbed by thickets of bodies. At this scale of content/expression, the *mass* describes zones of relative solidity while packs surf escape velocities. Framed as a question of speed we can see how neither the *class* and the *mass* or the *mass* and the *pack* are correctly conceived as binary oppositions. The *mass* and the *pack* in Canetti's terms are merely two types of interpenetrable multiplicity, the *mass* here being a molar one and the *pack* a more supple molecular one. This molar multiplicity bears the characteristics of the mass; "large quantity, divisibility and equality of the members, concentration, sociability of the aggregate as a whole, one way hierarchy, organization of territoriality or territorialization and emission of signs." This contrasts starkly with those of the more liquid pack whose traits provide it with a flat, self-consistency; "small and restricted numbers, dispersion, nondecomposable variable distances, qualitative metamorphoses, inequalities as remainders or crossings, impossibility of a fixed

totalization or hierarchization, a Brownian variability in directions, lines of deterritorialization and projection of particles.”[ATP 33]

Understood in this way as a dynamic liquid, a flow of population displays traits of vortical patterning. However, for Da Landa, “more important than turbulent behaviour itself is that special, singular moment at the onset of turbulence. A liquid sitting still or moving at a slow speed is in a relatively disordered state: its component molecules begin to move in concert to produce highly intricate patterns. Transition points like these, called ‘singularities’. . .points or thresholds in the rate of matter and energy are referred to as singular because they are rare and special.”[WAIM 15] As we will see in Sector 4, in the era of ‘turbulence simulation’, complex social cybernetics opens out the array of such critical thresholds. It can also be seen how in our conception of the modern history of war through economic cycles⁸⁰, the role of technological innovation contains this critical potential for initiating cascading bifurcations in the planetary system. For just now, we will concentrate on Deleuze & Guattari’s postulation of the ‘released nomadic potential of the riot’.

Past a certain critical velocity threshold and compositional intensity, the collective assemblage swarms to attack its enclosure,

⁸⁰ See Chapter 3.

stratification and traffic regulation. So, for example, when Canetti describes the bodily mass turned destructive, he points to the destruction of material obstacles and containers, walls, boundaries as well as semiotic outcrops of a system of capture; "I designate as eruption the sudden transition from a closed into an open crowd. This is a frequent occurrence, and one should not understand it as something referring only to space. A crowd quite often seems to overflow from some well-guarded space into the squares and streets of a town where it can move about freely, exposed to everything and attracting everyone. But more important than this external event is the corresponding inner movement: the dissatisfaction with the limitation of the number of participants, the sudden will to attract. . ."[CP: 23] The onset of street turbulence.

"A hive about to swarm is a hive possessed. It becomes visible agitated around the mouth of its entrance. The colony whines in a centreless loud drone that vibrates the neighbourhood. It begins to spit out masses of bees, as if it were emptying not only its guts but its soul. A poltergeist-like storm of tiny wills materializes over the hive box. It grows to be a small dark cloud of purpose, opaque with life. Boosted by a tremendous buzzing racket, the ghost slowly rises into the sky, leaving behind the empty box and quiet bafflement."⁸¹

⁸¹ Kelly 1995 7.

Michel Serres also describes the turbulent motion of mob dynamics; "In the middle of the demi-cone or at the center of the vortex, lies the object of hate, the subject of proscription. Multiplicity shoves its noise onto the one. It crystallizes the noise. No longer a multiplicity, no longer noisy, it is one, globally, it is a single chorus, it is one locally, the center, the midpoint, the navel of the vortex: the eye. The eye of the storm."⁸² This turbulence theory of population disorder also has some important correspondences with guerrilla strategy which seeks to sustain the emergent order of turbulent populations onto a plateau of protracted insurgency against the State without irrigating out the energies of destratification.

2.3 Guerrilla insurgency: sino-hydraulics and the nomad war machine

"The physics of the vortex is revolutionary" (H: 121)

"The hydraulic model of nomad science and the war machine. . .consists in being distributed by turbulence across smooth space, in producing a movement that holds space and simultaneously affects all of its points, instead of being held by space in a local movement from one specified point to another."(ATP: 363)

"The transfer from Empire of China to Empire of the Self is never ending"⁸³

⁸² 1995 60.

⁸³ Victor Segalín quoted in p153 Dean & Massumi (1992) First & Last Emperors, NY: Autonomedia.

The concept of *war hydraulics* which can be extracted out of the *Treatise on Nomadology* plateau of *A Thousand Plateaus* is an orientation developed with the intention of de-dialecticizing our cartography of violence. It will be contended that it pushes the investigation of the social topology of war towards a conjunction of Chinese martial philosophy (in its cosmic context) and our discussion of turbulence. It therefore opens Deleuze & Guattari's 'nomad war machine' onto a body of guerrilla literature and strategy manuals, an alignment which any concrete analysis of their *pragmatics*, must take seriously- *war against the state*. In this chapter, *fluidity* has been emphasised as base dynamic in a general theory of swells and flow. An attempt has been made to provide a means of understanding emergent order out of chaos, relative solidity in liquid flow and therefore proceeds with the topology of war congruent with the reversal of Clausewitz's dictum; that is to say, our topology of war unfolds the dialectics of interstate conflict onto a fluid material continuum whereby politics is a second order symptom of a planetary war machine. In this discussion, the nomad war machine as a machine tuned to/ surfing on turbulence is run through an analysis of strategy of guerrilla insurgency of Sun Tzu and Mao Tse Tung.

If the nomad war machine has an essence, as we have been arguing especially above, then it is relative fluidity. As Massumi explains, "Fluidity is Unity minus the dictate to form a single body, and separated from the unidirectional drive to Dominion. It is the unity *in fluctuation* of a collection of disparate elements whose disparateness is not denied. . .It is unity liberated from the organic ideal of the State-extreme. . .A unity that does not preclude divergence. . .If the counter-ideal of the Nomadic-Extreme is impossible, it is not due to a contradiction in its logic but to resistances inherent in the materiality of its constituent elements (even the sea has a shore). Fascism marches duplicitously toward transcendence, nomadism undulates superficially toward immanence: channelling versus wave propagation."(FLE: 75)

If Deleuze & Guattari's nomad war machine is to converge with the base turbulence of Chinese martial arts, then it occurs in the abstract machine of a mode of composition cosmically tuned to the destruction of the State form. "Martial arts and state-of-the-art technologies have value only because they create the possibility of bringing together worker and warrior masses of a new type. The shared line of flight of the weapon and the tool: a pure possibility, a mutation,"(ATP 403) ^{generating} guerrilla swarmachines whose vernacular cybernetics surf the vortex of postmodern global capital. The mutation of guerrilla war into electronics morphs the hi-tec carceral

continuum into a digital jungle. Routes back round the Moebius strip into the jungle warfare of post-Conradian endo-colonisation.⁸⁴

Both Virilio and Deleuze & Guattari make the crucial distinction between 2 strategic orientations. Virilio's eerie text *in Bunker Archaeology* which introduces his collection of black and white photographs of the disused concrete bunkers of Nazi oceanic vigilance, tracks the speed obsession of the Occidental military machine; "In the Occident, *the time of war is disappearing*;" (BA: 21) Despite the modernity of the molar organization of war and the appropriation (militarization) of the war machine by the apparatus of the state, a molecular conception persists which is of an altogether different nature to that which stoked the furnaces of Total War. In fact the prospect of species annihilation, Virilio argues, has forced the Occidental military elite to take heed of this alternative approach to war. In the stalemate or surface equilibrium of Total Peace, new flexible responses re-emerge. Turbulence develops in the cracks of the permanent arms economy of US hegemony. Core strategy mutates to *counter-insurgency* and becomes guerrilla war machine programming insurgency by simulation. As Virilio describes, subversion analysis signals the fluidification of control chasing orphan lines of decoding and

⁸⁴ We could follow the emergence of this digital jungle through key texts/phenomena of postmodern violence; the purr of the helicopters from *Apocalypse Now* through into *Ballards Drowned World*, the LA riots, the catastrophe simulators of *Sim-City* and the net-war of the Zapatistas.

deterritorialization. Occidental strategy looks east to simulate Chinese war hydraulics to surf the streams of decoded flows with their pockets of turbulence; “the Orient is not something to be imitated; it only exists in the construction of a smooth space”(ATP: 379) Reel war.

Virilio describes the key characteristics of this Sino-hydraulic strategy appropriated by the planetary technocracy of war to counter balance the acceleration towards mutually assured destruction; “Prolonged warfare never loses its rights; Chinese tactics revolved around prolonging the time of war as opposed to the extreme shortening of that time in the Occidental apparatus. This duality, this conceptual duel, organizes the new strategic thought of technologically advanced armies; subversion analysis, the overt respect of the Occidental military intelligentsia for the theorists (from Sun Tse to Mao Tse-Tung, not to mention Giap Vo Nguyen)⁸⁵ of this combat mode show us that, to really understand recent evolution of the military, the establishment cannot help but refer to other types of philosophy of armed intervention.”(BA: 22) This different time of the guerrilla war machine and now the global

⁸⁵ See the seminal work by Robert Taber (1970), *The War of the Flea: Guerrilla Warfare Theory & Practice*, London: Paladin in which the trajectory of revolutionary thought into sixties radicalism is traced back to the thought of Sun Tzu.

war machine constitutes a smooth space and takes peace as its object- pure terror.⁸⁶

This strategic orientation which Virilio tracks down into the "Oriental military-rural apparatus . . . [which] tends to increase the time of war by mobilising the population around active or passive- direct or indirect- survival objectives, natural catastrophes, accidents, and restrained conflicts seen as part and parcel of the same war- class struggle extending in the end into all dimensions of everyday life."(BA: 22) As a vortical population composed around lines of least resistance, the nomad war machines flows down towards, connects with and surfs natures' non-linearity, fine tuning emergent vectors against stratification on the most contiguous scale.

Like Virilio, Deleuze & Guattari in *A Thousand Plateaus* contrast two modes of revolution relating to the Occidental and the Oriental. Because of their distinct relations to stratification, the Occidental and Oriental state apparatus stand vulnerable to different modes of attack. Due most significantly to geographical considerations, "In the Orient, the components are much more disconnected and disjointed, necessitating a great immutable Form to hold them together: "despotic formations," Asian or African, are rocked by

⁸⁶ It attains critical velocity of both virtualization and actualization in the Gulf

incessant revolts, by secessions and dynastic changes, which nevertheless do not affect the immutability of the form. In the West, on the other hand, the interconnectedness of the components makes possible transformations of the State-form through revolution. It is true that the idea of revolution itself is ambiguous; it is Western insofar as it relates to a transformation of the State, but Eastern insofar as it envisions the destruction of the State. The great empires of the Orient, Africa and America run up against wide-open smooth spaces that penetrate them and maintain gaps between their components (the nomos does not become countryside, the countryside does not communicate with the town, large scale animal raising is the affair of the nomads, etc.): the oriental State is in direct confrontation with a nomad war machine"(ATP: 385) Here Deleuze & Guattari fuse the vector of nomad war with the history of Chinese guerrilla swarmachines and its strategic background.

Paul Virilio's dynamic flow chart of war is underscored by a diagram carved out in ancient China. Pure war even in its postmodern configuration constitutes the 'art of fighting without fighting.'⁸⁷

War which will be examined through the writings of both Virilio and Jean Baudrillard in Sector 4.

⁸⁷ In Virilio's most general sense, "*Pure War* is neither peace nor war; nor is it as was believed, "absolute" or "total war". Rather, it is the military procedure itself in its ordinary durability"(PDEC: 35) In cybernetic society however, *pure war* resides specifically in the *digitalisation of base turbulence*. "Cyberspace is not a promised land but a battle ground." "Pure War is speed and military population.

Through Virilio's lenses, "Sun Tzu asks that we never confuse Pure Power (the military thing) with Domination (the State). What he means by pure power is equally clear, and he often comes back to it: the essential thing is to make the enemy submit without combat, 'to avoid setting off the *mechanism*.' Open warfare must be a constant allusion to primordial camouflage, and its only consistency must be constant change, in which no one element takes precedence for too long. . . This could not be the case in war begun as a perpetual mechanism of pure power. Thus, what Sun Tzu designates as a "war machine" (chapters II, V, XI) is not the 'minimum potential' from which any military organization can exact enormous results, but the joint dialectic that contains all of the opposing parties' operations. . ."(PDEC: 22-23)

Underlying the vision of war of strategist Sun Tzu⁸⁸ and hence convergent with Deleuze & Guattari's abstract physics of the nomad war machine lay a notion of war as a *hydraulic system*. Comparing the force-field of war to a water-course, it was recorded that "an army may be likened to water, for just as flowing water avoids the heights and hastens to the lowlands, so an army avoids strength and strikes weakness"[AW: VI 27] But it misses much to take this

It is thus the population of time, the ultimate metaphysical figure of 'projected' societies."(PDEC: 102)

⁸⁸ see also the classic Taoist commentaries on Sun Tzu compiled in Zhuge Liang & Liu Ji (1995) *Mastering the Art of War*, trans. & ed. Thomas Cleary, London: Shambala.

purely at the level of analogy, likeness or metaphor. Sun Tzu testifies fundamentally to the liquid unpredictability of warfare, never more clearly the case in the postmodern era of military computation, complexity and simulation. Sun Tzu's 'tao of war' can be run literally as a fluid mechanics; "as water shapes its flow in accordance with the ground, so an army manages its victory in accordance with the situation of the enemy"[VI 28] laying the path for a chaos theory of conflict in the insight that "as water has no constant form, there are in war no constant conditions."[VI 29]. As Virilio puts it, "from the beginning, military intelligence has struggled against the badly-defined collection of freedoms, risks and uncertainties, the chaos of the natural environment and the spontaneous movements that can occur within it. This is its primary definition which founds the coherence of the realization of the concept of war- its *conductability*- in time and space."(PDES: 14) In fact it is Sun Tzu who invents Virilio's notion of Pure War. Moreover, the reason why The Art of War by Sun Tzu is a tool box for the cutting edge of cybernetic capitalism, from business⁸⁹ to military strategist, is that it contains an abstract flow chart of a fluid physics for survival 'far from equilibrium,' a tactics for turbulence. This orientation on the Art of War, this darkside *base hydraulics* guides a whole current of insurgency theory against the state. It corresponds to the strategy of 'fighting without fighting' of

⁸⁹ The field of management strategy, business tactics, trading and guerrilla

the 'soft' martial arts⁹⁰. Hence the nomad war machine's synthetic relation to violence. In its hydraulic diagrammatics and guerrilla fluid mechanics, it constitutes the plane of consistency through the Chinese martial arts from Sun Tzu, through the tao drenched practices of T'ai chi, Kung Fu, to Mao's guerrilla writings and Vietnamese strategy during what Jameson calls the 'first postmodern war'⁹¹. The emphasis on fluidity maps the decoding and deterritorializing influence on the strata and the terrain of hierarchical flattening in the distributed systems of information warfare. *Phase Change: neo-cortical warfare- turbulence simulation, programmed catastrophe- pure war.*

"The silicon links were already there"(ZO: 253)

Cyberwar is not just about technical machines. Information warfare does not just take place in cyberspace. Its fundamental element is virtual reality, but an array of practical religions have been surfing it for many millenia. In addition to the militarized reality of science fiction, this is one explanation ^{why} the new sciences of complexity ceaselessly converge with the Chinese martial arts. Situated on this continuum, information warfare is stripped down to a war of perceptions, hacking, jamming and stealth tactics in the nervous

marketing is saturated with leadership manuals plugging Sun Tzu and Lao Tzu into the eddies and vortices of turbular international finance.

⁹⁰ See H. Reid & M. Croucher (1987) *The Way of the Warrior: The Paradox of the Martial Arts*, London: Century Publishing.

system, whether it be planetary telecommercial networks or the human organism.

“Chaos and solitons have become the yin & yang of the new physics”⁹²

Implicitly, Massumi’s depiction of machinic postmodernism’s conception of virtual reality unfolds the Hegelian version of the yin-yang through a turbulence physics of strange attractors, phase spaces and transcalar parallelism of self-similarity. “The virtual and the actual are coresonating systems. As the actual contracts a set of virtual states into itself at a threshold state, the virtual dilates. When the actual passes a threshold, bifurcates towards a specific choice, and renounces the other potential states, the virtual contracts them back and the actual dilates. When one contracts (resonates at a higher intensity), the other dilates (relaxes). Each side has its own internal local-global correlations: resonances and tensions between nucleating subpopulations that respond individually and together. The local-global correlation of the actual and that of the virtual interact as subpopulations of a single individual. The universe is a double faced supermolecule, each face of which is a supermolecule in its own right. They peacefully resonate together, or, if the tensions on one side or the other reach

⁹¹ See Chapter 4.

⁹² p2 in Alwyn C. Scott, (1989) “Introduction”, in Peter Christiansen & R.D. Parenti, (eds), *Structure, Coherence and Chaos in Dynamical Systems*, Manchester: Manchester University Press.

turbulent proportions, they clash. In that case, the turbulent side sends shock waves of crisis that amplify the other, which is forced to infold the disturbance into its local-global correlation as best it can. The universe as cosmic dissipative system.”(UG: 65-66) In the era of planetary computerisation, as will be detailed in Sector 4, the virtual accident is pure revolutionary intensity immanent to the technological complexity of the system. It forces a reorientation of postmodern insurgency around system malfunction, a sidestepping of agency towards an acceleration of systemic tendencies outlined by Deleuze & Guattari in *Capitalism & Schizophrenia* towards decoding and deterritorialisation.

The most important convergence with Deleuze & Guattari’s theory of the war machine with Chinese strategy is related to a mode of becoming which only takes war as an object, but is constituted in the primary process of the constitution of a smooth space. Much can be illuminated concerning Deleuze & Guattari’s nomad war machine and what will later be conceived in terms of a ‘collective ethics of speed’. In this sense it is more conducive to a Taoist practical philosophy rather than the organicism of Confucianism. Like Sun Tzu’s *The Art of War*, in Lao Tzu’s *Tao Te Ching* this war hydraulics is outlined as a theory of flows;

“Highest good is like water. Because water excels in benefiting the myriad creatures without contending with them and settles where none would like to be, it comes close to the way. . .”[12]

"In the world there is nothing more submissive and weak than water. Yet for attacking that which is hard and strong nothing can surpass it. . . "[85]

"The reason why the River and the Sea are able to be king of the hundred valleys is that they excel in taking the lower position. . . "[73]

We may assert that *the tao corresponds to the pragmatics of smooth space*- in Bruce Lee's words, the tao comprises "a formlessness, it can assume all forms."⁹³ constituting the plane of consistency and as we shall see later roughly equivalent to Spinoza's materialist God, Substance or Nature⁹⁴. One can point also to key notions such as the 'stationary voyage'⁹⁵ of the nomad (intensive speed) which converges with Taoist notions such as 'keeping still'- both constitute an ethics of survival in the eye of the storm. Conceptions of 'chi' or energy in Taoism already offered an acupunctural diagrammatics of the body in an era of cyborgian dehumanization. We get a map of what a body can do, a map used experimentally, an ethics to navigate "a body charged with electricity, with pure intensity"(ATP: 378)

⁹³ 24 in Lee, B. (1975) *The Tao of Jeet Kune Do*, Santa: Clarita: Ohara.

⁹⁴ see Chapter 5.

⁹⁵ "We can say of the nomads, following Toynbee's suggestion: *they do not move*. They are nomads by dint of not moving, not migrating of holding a smooth space that they refuse to leave, that they leave only in order to conquer or die. Voyage in place: that is the name of all intensities, even if they also develop in extension."(ATP: 482)

The Taoist techniques of 'voyaging in place' and 'sticky hands'⁹⁶ in their emphasis on passivity and submission might on one level suggest a mode of masochism⁹⁷. However once it is noted that both involve the construction of a plane of immanence on which the relation between players is flattened onto the circuit known by Deleuze & Guattari as the body without organs, then the smooth continuity between apparent passivity and activity becomes clearer. Further consolidating the correspondences, Massumi also pushes the intensive towards the virtuality of the *uncarved block* of the Tao⁹⁸, in a sense twisting Freud's *Beyond the Pleasure*

⁹⁶ see the description of the T'ai Chi practices of 'Whirling Arms & Hands' in Chee Soo's *The Chinese Art of T'ai Chi Ch'uan*, (1984) London: Harper Collins.

⁹⁷ In the plateau, 'How Do You Make Yourself a Body Without Organs?', Deleuze & Guattari discuss the divergence and convergence of Taoism and masochist practices; "We see in it the formation of a circuit of intensities between female and male energy, with the woman playing the role of the innate or instinctive force (Yin) stolen by or transmitted to the man in such a way that the transmitted force of the man (Yang) in turn becomes innate, all the more innate: an augmentation of powers. The condition for this circulation and multiplication is that the man not ejaculate. It is not a question of experiencing desire as an internal lack, nor of delaying pleasure in order to produce a kind of externalizable surplus value, but instead of constituting an intensive body without organs. Tao, a field of immanence in which desire lacks nothing and therefore cannot be linked to any external or transcendent criterion. It is true that the whole circuit can be channelled toward procreative ends (ejaculation when the energies are right); that is how Confucianism understood it. But this is true only for one side of the assemblage of desire, the side facing the strata, organisms, State, family. . .It is not true for the other side, the Tao side of destratification that draws a plane of consistency proper to desire, the Tao side of destratification that draws a plane of consistency proper to desire. Is the Tao masochistic? Is courtly love Taoist? These questions are largely meaningless. The field of immanence or plane of consistency must be constructed. This can take place in very different social formations through very different assemblages (perverse, artistic, scientific, mystical, political) with different types of bodies without organs. It is constructed piece by piece, and the places, conditions, and techniques are irreducible to one another. The question, rather, is whether the pieces can fit together, and at what price."(ATP: 157)

⁹⁸ "There are religious nomadisms both Eastern & Western (Daoism with its spiritual journeys, versus the Confucian obsession with ancestors and origins. . ."(FLE: 77)

*Principle*⁹⁹ into a libidinal nomadology; “. . .the only end the actual world has is the constraint to rejoin the plane of immanence. It is destined, as the Taoists say, to pace the void. . .(or as the mathematicians say, to take a random walk).”(UG: 66)

The nomad war machine has a synthetic relation to violence, its primary process being concerned with *speed* rather than conflict. But as was argued in Sector 1, its affinity with speed concerns an intensive continuum rather than mere extensive rapidity- it is *speed coupled to bodily intelligence*; “The martial arts have always subordinated weapons to speed, and above all to mental (absolute) speed: for this reason, they are also the arts of suspense and immobility. The affect passes through both extremes.” As a martial pragmatics, “the martial arts do not adhere to a *code*, as an affair of the State, but follow *ways*, which are so many paths of the affect; upon these ways, one learns to ‘unuse’ weapons as much as one learns to use them. Learning to undo things, and to undo oneself, is proper to the war machine: the ‘not doing’ of the warrior, the undoing of the subject.¹⁰⁰ A movement of decoding runs through the war machine, while overcoding solders the tool to

⁹⁹ Here Freud describes the gravitational tendency of all life towards death.

¹⁰⁰“In the smooth space of Zen, the arrow does not go from one point to another but is taken up at any point, to be sent to any other point, and tends to permute with the archer and the target.”(ATP: 377) See also E. Herrigel (1985) *Zen In the Art of Archery*, trans. R.F.C Hull, London: Arkana & the Japanese Samurai classic, *A Book of Five Rings*, (1984) M. Musashi, trans. Victor Harris, London: Flamingo.

an organization of work and of the State (the tool is never unlearned; one can only compensate for its absence).” (ATP:400)

And while “[it] is true that the marital arts continually involve the center of gravity and the rules for its displacement. . .[that] is because the ways are not the ultimate ones. However far they go, they are still in the domain of Being, and only translate movements of another nature into the common space- those effectuated in the Void, not in nothingness, but in the smooth of the void where there is no longer any goal: attacks, counterattacks and headlong plunges.” (ATP:400)

“If nothing within you stays rigid outward, things will disclose themselves. Moving, be like water”¹⁰¹

We can follow this cosmic art of war into modernity, mapping the influence of Sun Tzu’s thought on Mao Tse Tung’s guerrilla strategy, thereby facilitating a perhaps unconventional way of contrasting Deleuze & Guattari’s machinic postmodernism and dialectical materialist strategy¹⁰², bringing out the innovation of

¹⁰¹ 7 in Lee, B. (1975) *The Tao of Jeet Kune Do*, Santa: Clarita: Ohara.

¹⁰² This general contrast which can be made between Deleuze & Guattari’s nomad war machine and Mao’s guerrilla warfare can be consolidated with reference to the theory of games. In *A Thousand Plateaus* Deleuze & Guattari discuss the game of Go, or *W’ei Chi* as it is known in China, and compare it with chess in relation to game pieces, “relations between the pieces and the space involved.”(ATP: 352) As they outline, Go pieces “are pellets, disks, simple arithmetic units, and have only an anonymous, collective or third person function. ‘It’ makes a move, ‘It’ could be a man, a woman, a louse, an elephant. Go pieces are elements of a nonsubjectified machine assemblage with no intrinsic properties, only situational ones. . .A Go piece has only a milieu of

Deleuze & Guattari's cosmic physics of war. In his Introduction to Mao's treatise *On Guerrilla Warfare*, Samuel Griffith points to the convergence of Mao's theory to the Chinese symbol for the "unity of opposites", the yin-yang. Emphasising the often made correspondence between the yin-yang and the dialectic, with the 'endless', 'opposite', 'elemental' 'polarities' they may be likened to the thesis and anti-thesis from which the synthesis is derived. Griffith notes that "[a]n important postulate of the yin-yang theory is that concealed within strength there is weakness, and within weakness, strength. It is a weakness of guerrillas that they operate in small groups that can be wiped out in a matter of minutes. But because they do operate in small groups, they can move rapidly and secretly into the vulnerable rear of the enemy. . . In conventional tactics, dispersion of forces invites destruction in guerrilla war, this very tactic is desirable both to confuse the enemy and to preserve the illusion that the guerrillas are ubiquitous."¹⁰³

exteriority, or extrinsic relations with nebulas or constellations, according to which it fulfils functions of insertion or situation, such as bordering, encircling, shattering. All by itself, a Go piece can destroy an entire constellation synchronically. . . But what is proper to Go is war without battle lines, with neither confrontation nor retreat, without battles even; pure strategy. . . In Go, it is a question of arraying oneself in an open space, of holding space, of maintaining the possibility of springing up at any point; the movement is not from one point to another, but perpetual, without aim or destination, without departure or arrival.(ATP: 352-353) The same game, emphasises Scott A Boorman in his book *The Protracted Game*, is fundamental to understanding Maoist revolutionary strategy from the Kiangsi Period through the Sino-Japanese wars to the civil war. (1969) New York: Oxford University Press.

¹⁰³ 22 in Mao Tse-Tung (1978) *On Guerrilla Warfare*, Anchor Books.

From the point of view of the 'yin-yan' as dialectic, Mao's guerrilla theory becomes a balance between the light and the dark forces. So, for example, when Mao discusses the relation between command and the environment in the essay *On Protracted War* he notes that "[no] one denies that even a plan valid for a given period is fluid; otherwise, one plan would never be abandoned in favour of another. But it is fluid within limits, fluid within the bounds of the various war operations undertaken for carrying it out, but not fluid as to its essence; in other words, it is quantitatively but not qualitatively fluid. Within such a given period of time, this essence is definitely not fluid, which is what we mean by relative stability within a given period. In the great river of absolute fluidity throughout the war there is relative stability at each particular stretch- such is our fundamental view regarding war plans or policies."¹⁰⁴ But processed through the complex fluid dynamics of our *war hydraulics*, we can see how Mao's theory can be understood without recourse to dialectics but rather as a 'unilateral deviation from fluidity' without elemental duality. Refusing to submit to a dialectical strategic thought, Deleuze & Guattari prefer a tactical rhizomatics. With the elemental duality of dialectics, "One becomes two: [but] whenever we encounter this formula, even stated strategically by Mao or understood in the most 'dialectical' way possible, what we have before us is the most

¹⁰⁴ 170 in Mao Tse-Tung (1967) 'On Protracted War' in *Selected Works of Mao*

classical and well reflected, oldest, and weariest kind of thought. Nature doesn't work this way: in nature, roots are taproots with a more multiple, lateral, and circular system of ramification, rather than a dichotomous one. Thought lags behind nature."(ATP: 5)

In conclusion, we see through these examples some ways in which Deleuze & Guattari's fluid cartography of war is not just a map as representation or tracing, but conjoined with a war hydraulics constitutes an active orientation against social stratification making the cartography an experimental practice applicable on a variety of scales. It has been seen that in a crucial sense, the theoretical 'tool-boxes' of *Capitalism & Schizophrenia* to a certain extent converge with a history of guerrilla strategy manuals. It is important to point out however the tension between Deleuze & Guattari's anti-dialectics and the Chinese thought of the yin-yang. Where the yin-yang has emerged as a cultural meme in the Occident it has normally been processed through a mode of thought to which Deleuze & Guattari oppose themselves. We have therefore sought to go beyond this tension, to what is arguably a deeper convergence which becomes visible when the dialectics of war is topologized into a continuum of war, the plane of consistency or smooth space. And it is the fluid composition of such

a space which allows us to term their theory of war and turbulence
a 'war hydraulics'.

sector 3. War Continuum

3.1 non-linear history: The social topology¹⁰⁵ of war

“history skids over matter”(Michel Serres)¹⁰⁶

“eddies and vortices nested inside more eddies and vortices”(Manuel Da Landa)¹⁰⁷

“History is the ordered creation of chaos through the realization of a theory of war as the geometric basis of all reality, the stabilization of all the variable magnitudes that founded and balanced the universe. . .”(Paul Virilio)¹⁰⁸

In this section, Deleuze and Guattari’s cartography will be deployed to map non-linear social evolution, thereby piecing together the back-drop of our discussion of postmodern violence. If the implications of the collapse of the *modern* project is subject of endless theoretical debate, then the intersecting manoeuvre of *machinic postmodernism* is an engineering project to unpick any remnants of teleology, statism, exclusivity, idealism and paternalism. As we have seen, the aim has been to adopt a

¹⁰⁵ Discussing the rupture of continuity through the concept of topology, Greg Lyn gives a useful outline; “Topological geometry in general, and the catastrophe diagrams in particular, deploy disparate forces on a continuous surface within which more or less open systems of connection are possible. This diagram is catastrophic because it can represent abrupt transformation across a continuous surface.

Topology considers superficial structures susceptible to continuous transformations which easily change their forms, them most interesting geometric properties common to all modification being studied. Assumed is an abstract material of ideal deformability which can be deformed, with the exception of disruption.

These geometries bend and stabilise with viscosity under pressure.”¹²⁵ in G. Lyn, *Folds, Bodies and Blobs*, (1998) Books-by-Architects. This chapter maps a social topology so as to provide the tools for discussing the co-existence of diverse social formations in postmodernity.

¹⁰⁶ H: 120.

¹⁰⁷ WAIM 8

¹⁰⁸ PDES: 30

rigorous definition of turbulence. The appreciation of non-linearity which this facilitates dismantles, most importantly for a cartography of postmodern violence, any conception of human history as the progressive victory of the Occidental State-Man complex as telos or 'end of history'. Once machinic history is clearly understood as a complex interrelation between desiring machines, technical machines and social machines then the non-linear physics of civilisations opens the terrain for stripping teleology of its face in order to deal with the realities of non-linear history manifested in the late capitalist meltdown of human and machine. *Machinic postmodernism* recombines what is identified by Deleuze & Guattari as the 19th century nexus between physics and sociology in light of chaos physics and a topology of the social.¹⁰⁹ In this chapter, a brief outline shall be constructed of their discussion of social physics and its implications for *non-linear history*.

The orientation towards non-linear history has most recently and most comprehensively been developed in Manuel De Landa's *A Thousand Years of Nonlinear History*, a work which is heavily inspired by Deleuze & Guattari's *A Thousand Plateaus*, even if De Landa retains a relatively uncritical attitude, often refusing conceptually to admit to an entity known as 'capitalism'. On the positive side, De Landa's work rigorously moves beyond Euro-

¹⁰⁹This nexus lies at the base of Deleuze & Guattari's discussions of Marx's

centrism and anthropomorphism, and more than any other author, has developed in his works, a general orientation to the driving force of multi-scalar turbulence. De Landa forces the insurgency of physics into history in order to problematize the obviously widespread common sense notion that human history evolves in stages. Rather than stages or "progressive developmental steps, each better than the previous one and indeed leaving the previous one behind"¹¹⁰ De Landa, following Deleuze & Guattari and as we will develop here, proposes a coexistence of different phases alongside each other, interrelating through tension and friction, liquifications, solidifications and crystallizations. De Landa immerses human history in a much broader cosmic context, mapping the flows of matter-energy and information which traverses it.¹¹¹

'tendency of the rate of profit to fall' and its correlation to the co-development of capitalism and the war machine.

¹¹⁰ 16 in De Landa, *A Thousand Years of Nonlinear History*.

¹¹¹ The general cartography performed by De Landa in this work maps the following flows; "Human History has involved a variety of Bodies without Organs. First, the sun, that giant sphere of plasma whose intense flow of energy drives most processes of self-organization on our planet and, in the form of grain and fossil fuel, of our civilizations. Second, the lava 'conveyor belts' that drive plate tectonics and are responsible for the most general geopolitical features of our planet, such as the breakdown of Pangaea into our current continents, and the subsequent distribution of domesticable species, a distribution that benefited Eurasia over America, Africa, and Oceania. Third, the BwO constituted by the coupled dynamics of the hydrosphere and atmosphere and their wild varieties of self-organized entities: hurricanes, tsunamis, pressure blocks, cyclones, and wind circuits. As we saw, the conquest of the wind circuits of the Atlantic (the trade winds and the westerlies) allowed the transformation of the American continent into a cast supply zone to fuel the growth of the European urban economy. Fourth, the genetic BwO constituted by the more or less free flow of genes through micro-organism (via plasmids and other vectors), which unlike the more stratified genetic flow in animals and plants, also avoided human control even after the development of antibiotics,. Fifth, those portions of the flow of solar energy through ecosystems (flesh circulating in natural food webs) which have escaped urbanisation, particularly animal and vegetable weeds, or

As outlined in Sector 1 and detailed here, disciplinary modernity is underpinned by a basic energetic diagram or abstract machine, one which is fundamentally *thermodynamic*. And as we will see in Sector 4, postmodernity or the period which has been characterized above as one of *turbulence simulation* or *programmed catastrophe* is fundamentally mapped by an abstract *cybernetics*. Through these energetic phase changes our non-linear history changes its morphology. The accelerated flows triggered by modern capitalism force states into a history of new deals. Despotic capture, energetically inefficient, collapses first into disciplinary, industrial, thermodynamic social machines and cybernetics-control systems and their novel strategies for channelling swerving vectors into the integrated circuits of hypercapital. Capture becomes intelligent to survive. *Turbulence simulation*.

The social machines which compose Deleuze & Guattari's discussion of history are primitive systems (cruelty machines), despotic States (terror machines) and civilised capitalist states (disciplinary machines). The phase space of a social machine is always plugged into the future, and with the limit points of explosion and implosion

rhizomes (the BwO formed by an underground rodent city, for example). Finally, our languages also formed a BwO when they formed dialect continua and circumstances conspired to remove any stratifying pressure, as when the Norman invaders of England imposed French as the language of the elites, allowing the peasant masses to create the English language out of an

warded off, they simultaneously feed back, steering machinic trajectories. The various economies of violence of these social machines configure populations and technical machines in specific martial modes; each machine regulates implosion and explosion according to a dynamic diagram which undergoes phase shifts when singular thresholds are crossed. A cartography of such social systems makes differentiations through permutations of *longitude* (relations of speed and slowness in extension) and *latitude* (affective potential, relations of power, magnitude of intensity). In this way Deleuze & Guattari's social topology is stretched across a rhythmic continuum of composition; detailing this continuum, they write - "the nomads do not precede the sedentaries; rather, nomadism is a movement, a becoming that affects sedentaries, just as sedentarization is a stoppage that settles the nomads, Griaznov has shown in this connection that the most ancient nomadism can be accurately attributed only to populations that abandoned their semiurban sedentarity, or their primitive iteration, to set off nomadizing. It is under these conditions that the nomads invented the war machine, as that which occupies or fills nomad space and opposes towns and States, which its tendency is to abolish. Primitive peoples already had mechanisms of war that converged to prevent the State formation; but these mechanisms change when they gain autonomy in the form of a

amorphous soup of Germanic norms with Scandinavian and Latin spices." Ibid

specific nomadism machine that strikes back against the States. We cannot, however, infer from this even a zigzagging is not successive but passes through the loci of a topology that defines primitive societies here, States there, and elsewhere war machines. And even when the State appropriates the war machine, once again changing its nature, it is a phenomenon of transport, of transfer, and not one of evolution. The nomad exists only in becoming, and in interaction; the same goes for the primitive. . . And collectivities can be transhumant, semisedentary, sedentary, or nomadic, without by the same token being preparatory stages for the State, which is already there, elsewhere or beside.”(ATP 430-431)¹¹²

261-2.

¹¹² DeLanda extends this by drawing from the abstract social physics of Arthur Iberall who has developed a model of human history in which societies are pictured as an ensemble of fluxes and reservoirs driving those fluxes: water, metabolic energy, bonding pressures, action modes, population, trade, technology. . .to stress the role of flows and phase transitions in determining social field stability.(WIAM 22) In his essay, *A Physics for the Study of Civilization* Iberall outlines the components of such a cartography; “I view the discontinuous social change manifested by the appearance of food processing societies [eg. from hunter-gathering to horticulture to settled agriculture] as evidence of internal rearrangements, new associations and configurations, and a new phase condensation- as if a gaslike phase of matter were becoming liquidlike or solid state like. . .At his beginning, modern man apparently lived in hunting-gathering groups operating in a range appropriate to human size and metabolism. . .If, as appropriate to size, man had the typical mammalian metabolism and roaming range of about 25 miles/day, cultures separated on the order of 50 miles would have little interaction. . .The 70 to 1000 mile separation of populations, as empirically found is highly suggestive of a system of weak force, ‘gaslike’ interaction. . .The diffusion of an early, small population could be considered nearly a gaslike motion. . .I surmise that decreases in the levels of the required potentials [temperature, water, food] caused condensation [liquification] of small bands on fixed centers of population. . .The nature of the social phase condensation, however, depends on the amplification capability of the technological potential. Associated with those two chief potentials- water supplies and technology [tools]- came changes in modes of living, improvement in the use of water resources, and localized social development through the domestication of plants and animals. . .[with state civilizations these ‘fluidlike’ social formations ‘crystallized’ into stratified systems]. . .From the archaeological record I conclude that civilization began when there was extensive trade [convective flow] among population concentrations [condensations]. The urban

Non-linear history is fundamentally anti-humanist. It locates social assemblages immanently to nature instead of through a transcendent anthropocentrism. In this way, an energetic account of the history of violence is more concrete than any humanist explanation based on the breakdown of state policy. For this energetic account, the emergence of machines is central, signalling singularities and dissipative structures in the flow of matter-energy. This orientation, developed by Deleuze & Guattari and taken up by Manuel De Landa moves between the dualism of means and ends or instruments and planning into a bottom-up multi-scalar cartography of turbulence.

The importance of a non-linear conception of history lies in the unmaking of racist and genocidal Occidental humanist narratives of progress and civilization. As Virilio argues, such meta-narratives constitute the canonic legacy of modernity; "Was not the nineteenth century's positivist euphoria over the 'great march of progress' one of the most insidious forms of the bourgeois illusion, the effect of which was to provide a cover for the fearsome military and industrial progression of the mode of scientific destruction? Or more precisely still, to mask the political and philosophical inversion brought about by this absolute accident, which renders

centers held cumulative populations greater than 2500 and were composite

henceforth relative and contingent all 'substances' natural or produced."(PA: 213)

The connotations of a linear, successive, equilibrating conception of history are usefully dealt with in terms of its implied social physics and its relations of speeds and forces, of order and chaos; of *turbulence*. The reformulation of social physics in light of turbulence theory and its deployment by Deleuze & Guattari against the State-form strips any remnants of teleology¹¹³ from the project of modernity- in this respect, their cartography merely tracks the non-linearity of the capitalist planetary system and its trajectory of immanentisation. As we shall see, *their machinic history* which underlies their *machinic postmodernism* attempts to dismantle the imperial evolutionary models of civilization constructed upon a myth of a primitive degree zero.

groups. The threshold size can be estimated from the absence of complex cultures of smaller population." (Iberall pp531-33)

¹¹³ The dismantling of the teleology of State violence extricates thought from the circular logics of liberalism. As Nietzsche writes; "So people think punishment has evolved for the purpose of punishing. But every purpose and use is just a sign that the will to power has achieved mastery over something less powerful, and has impressed upon its own idea of a use function; and the whole history of 'thing', an organ, a tradition can to this extent be a continuous chain of signs, continually revealing new interpreting and adaptations, the causes of which need not be connected even amongst themselves, but rather sometimes just follow and replace on another at random. The 'development' of a thing, a tradition, an organ is therefore certainly not its progressus towards a goal still less is it a logical progress, taking the shortest route with least expenditure of energy and cost, - instead it is a succession of more or less producing, more or less mutually independent processes of subjugation exacted on the things, added to this the resistances encountered every time, the attempted transformations for the purpose of defence and reaction, and the results, too, of successful countermeasures. The form is fluid, the 'meaning' even more so. . ."55 in F. Nietzsche (1994) *The Genealogy of Morality*, Cambridge: Uni. of Cambridge.

One ^{aim} of the critique ^{launched} by Deleuze & Guattari involves ^{the}

differentiation of their machinic conception of history from the linearity of dialectical materialism; they "define social formations by *machinic* processes not by modes of production (these on the contrary depend on the processes). The primitive societies are defined by mechanisms of prevention-anticipation: State societies are defined by apparatuses of capture; urban societies by instruments of polarisation; nomadic societies by war machines and finally international, or rather ecumenical organisations are defined by the encompassment of heterogeneous social formations. But precisely because these processes are variables of co-existence that are the object of a social topology, the various corresponding formations are co-existent."(ATP: 435) In *Anti-Oedipus*, their machinic postmodernism assumes the morphology of a mutant functionalism or *political catastrophe theory*, mapping the productive accidents which drive history. In *A Thousand Plateaus*, they maintain that "[a]ll history does is to translate a coexistence of becomings into a succession."(ATP: 431) Their reformulation of history is a tendential system running from the territorialized and coded earth through the decoded and deterritorialized planet of capitalism. Capitalism is seen to retrochronically rework the whole of history which is composed of a co-existing continuum of rigid lines, broken lines and lines of becoming, with their corresponding

modes of social segmentarity, regimes of signs, modes of numeracy and relation to speed (space-time). It constitutes not historical resolution but a descent into the maelstrom, down the spiralling slopes into the matrix ^{of bio-technical symbiosis.} Postmodernity as the New World Disorder does not represent a substitute telos standing in for the 'end of history' in neo-liberal perspectives.

As Goldstein writes in relation to the evolutionary rhythm of the world system, "the long wave¹¹⁴ is not a mechanistic or deterministic process."¹¹⁵ Braudel perceives a subtle, almost imperceptible "tendency for these great waves rolling in from the deep to become shorter in length. Should one attribute this to a speed up in the pace of history, a sort of snowball effect?"(PW: 78) Rather in the core of the world system mere repetition would be energetically impossible, due to the accelerating, escalative and non-linear tendencies in capitalism. Hugging the iterations of great power wars at the core, slides the trajectory of a planetary war

¹¹⁴ In terms of the economic conjuncture as noted by Braudel and its nested patterns and cycles, we can cite an array of rhythms stretched out across the scale of time. The slowest rhythms of the world system are known as the secular trend and Kondratieff waves. The importance of these waves for constructing a non-linear history concerns their cyclic discontinuity. For Braudel, if the Kondratieffs map the cyclic undulations of prices of periods of roughly 50 years, then the secular trend constitutes "the baseline from which prices as a whole take off."(PW: 76) Braudel identifies 4 successive secular cycles for European history; "1250 [1350], 1507-1510; 1507-1650, 1733-1743; 1733-1743 [1817] 1896; 1896 [1974]. . .The first and last date in each case represents the beginning of an upward movement and the end of downward one; the middle date in square brackets indicates the peak, the point at which the secular trend begins to go into decline, in other words the moment of crisis."(PW: 77)

¹¹⁵ 434 in J. Goldstein, "Kondratieff Waves as War Cycles", International Studies Quarterly, 1985, 29.

machine whose destructiveness is mapped upwards by an exponential curve. What fundamentally attacks the linear histories seeking the enlightenment of perpetual peace is a tidal wave of absolute deterritorialization, constituting for Deleuze & Guattari, planetary schizophrenia- the blurring of virtual and actual reality through the runaway of the military-cybernetics complex.¹¹⁶ This

¹¹⁶ Frederic Jameson's mapping of postmodernity is a zoom in on this wave pattern of capitalism outlined by the Marxian economist Ernst Mandel, particularly in his *Late Capitalism*. This pattern of the long wave as it is known in the world system theory of eg. Wallerstein, diagrams the vibratory *held* of modern core economies. The long wave consists in upswings and downswings, each cycle demarcating one phase space, or loop parameter. Upswings correspond to periods of rising prices and robust growth in production. In downswings prices and production either fall or rise less rapidly leading, for example, to stagnation. Several strands of long wave theory, eg. Goldstein, have mapped this wave pattern onto the rhythms of major core wars during capitalism.

In the chapter of *Late Capitalism* entitled the 'Permanent Arms Economy, Mandel analyses the relation between arms production and Marx's famous 'tendency for the rate of profit to fall'. We can use this analysis as a starting point for understanding Deleuze & Guattari's conception of cybernetic capitalism in which the "distinctions between constant and variable capital, and even fixed and circulating capital [become] increasingly relative." (ATP: 492) In cybernetic capitalism, control in the form of reterritorialization and recoding fluidifies and on a planetary scale reaches its "absolute speed, based on machinic components rather than the human components of labour." (ATP: 492) In Marx's *Capital* 9Vol.3), he pins the trajectory of capitalism, or the 'tendency to changes in the organic composition of capital so that a "gradual growth of constant capital in relation to variable capital must necessarily lead to a gradual fall of the general rate of profit." (212) Or put another way, "the drop in the rate of profit, therefore, expresses the falling relation of surplus-value to advanced total capital." (214) Mandel provides some clarification of this general definition of the 'organic composition of capital'; "the technical or physical, relationship between the mass of machinery, raw materials and labour necessary to produce commodities at a given level of productivity, and the *value* relationship between constant and variable capital determined by these physical proportions." (LC: 595) Mandel, as a long wave theorist, is interested in what counteracting tendencies are generated within capital to resist the falling rate of profit. The permanent arms economy is examined in these terms, i.e. as a capitalist strategy to increase general surplus value through heavy investment in military-industrial sectors. Mandel reaches the following conclusions; "historically the permanent arms economy speeds up rather than brakes intensive technological innovation and hence the growth of the organic composition of capital." (304) Also he underlines that it is inevitable that his technological innovation will spread to non-military sectors of the economy. Most importantly, Mandel notes that "in the long-run the 'permanent arms economy' cannot eliminate any of the

pattern, Goldstein points to the irreversible energetic trajectory of the world system; "The war cycle cannot continue to repeat indefinitely while wars become exponentially more destructive. Nuclear war would be the logical outcome of the old rules of world politics. Thus, the system must either change its operating rules or self-destruct."¹¹⁷ The new rules are the axiomatics of *turbulence simulation*.

pressure towards crisis inherent in it. Even its temporary buffering of the contradictions and pressures towards crisis only occurs at the expense of their transfer from one sphere into another- above all, from that of actual overproduction to that of inflation and overcapacity."(306)

¹¹⁷ Ibid. 434.

3.2 Planetary Co-Laminarization: the megamachinic skin & the irrigation of turbulence

3.2.1 State Megamachines

“The State was not formed in progressive stages; it appears fully armed, a master stroke executed all at once.”(AO: 217)

“The State was first this abstract unity that integrated subaggregates functioning separately; it is now subordinated to a field of forces whose flows it co-ordinates and whose autonomous relations of domination and subordination it expresses.”(AO: 221)

In the postmodern world system, states as models of realization of the axiomatics of capitalism, do not take on a uniformity of form. If there is a similarity then it is merely in the opening out of diverse state systems onto the same planetary economy. The states of the center provide the model for this *isomorphy*. Bureaucratic socialist states while residing in this world economy still impose a *heterogeneity* on their systems based on an abstract machine of planning rather than capital as such. Along the North-South axis, the relation of core to periphery (again located within the flows of global capital) speaks to the *polymorphy* of the margins of the world system.

For Deleuze & Guattari, late capitalism as the contemporary configuration of these components constitutes a transition in the power dynamics of the world system away from East-West confrontation towards the North-South axes. The East-West system, while describing the dynamics of the Cold War and its

functionality to the single capitalist planetary economy, opens out onto an historically broader tension between distinct modes of the State, of social stratification, hierarchy and capture. The Cold War dissolves into a more fundamental issue of a *complementary planetary co-stratification* strung out between the 2 poles of the State. Although never in actuality mapping precisely in terms of geography, for Deleuze & Guattari, East-West corresponds to the distinction between Oriental Despotism (and its totalitarian/socialist iterations) and the modern capitalist state. In agreement with their non-linear conception of history, Deleuze & Guattari warn that between these two abstract modes, with their numerous concrete mixtures, there is no necessary progress in terms of the disappearance of violence. As their hydraulics of war underlines, war in its morphological fluidity deposits State systems along its way, leaving one configuration here and another there like patterns in layers of sedimentation sorted by the base flow. For example, the monopoly of violence of the modern state differs in disciplinary, totalitarian, fascist and socialist models even though all lie on the continuum of capture. This continuum also encompasses the mini-despotism of Oedipalised familial culture and the godfathered crime syndicates which globally compete with State systems in the general economy of violence. Together, they form a planetary megamachine complex, a skin of extortive stratification. This whole continuum is the dynamic field which we

are attempting to formulate in terms of turbulence- the war continuum and its capture.

The components of planetary co-stratification contain the future-history of the capitalist world system. Answering the question of why capitalism did not emerge in 13th century China despite existant techno-scientific competencies, Deleuze & Guattari proclaim that "the answer lies in the State, which closed the mines as soon as the reserves of metal were judged sufficient, and which retained a monopoly or a narrow control over commerce. . ." (AO: 197) Perhaps more fundamental is the degree to which these clusters of States operated 'far from equilibrium.' Following Braudel, Da Landa suggests that "nomad societies existed in a more or less 'solid' state until a singularity in the weather caused them to 'liquify' and flood their sedentary neighbours. Conversely, the Europe of 1494 was in a process of 'solidification' as if the different political entities that comprise Europe has existed in a fluid form and were now crystallizing into a solid shape. In contrast with rival empires [Chinese, Ottoman] which for reasons of geography and religion had developed into a mostly uniform 'crystal'. Europe never solidified into one piece, but rather into a broken conglomerate with shifting boundaries. As 'stress' built up along those cracks and fissures, it was relieved in the form of armed conflict following the lines of least resistance. And it was

indeed the dynamical nature of this 'broken crystal' that allowed western societies to surpass China and Islam in the competition to conquer the world."(WAIM: 21-22)

The State represents, in whichever formation and to whatever degree, the simultaneous lock-up and amplification of a martial potential- this is why the most 'civilised' Westernised State possesses the most enormous explosive potential. In their use of Dumezil's analysis of Indo-European mythology, Deleuze & Guattari contrast the 'terror' machines of the despotic state against the modern rule of law and its 2 faces of aestheticized violence and pyrotechnical extremity; in modernity we "should not be too hasty in speaking of a softening, a humanisation; on the contrary, this is perhaps when the war machine has only one remaining object, that of war itself. Violence is found everywhere, but under different regimes and economies. The violence of the magic emperor; his knot, his net, his way of 'making moves once and for all'. . . The violence of the jurist-king; his way of beginning over again every move, always with attention to ends alliances and law. . .All things considered, the violence of the war machine might appear softer and more supple than that of the State apparatus because it does not yet have war as its 'object'"(ATP: 425)

As with the relation between primitive machines and States, the question of the relation between different modes of State cannot properly be understood in terms of an evolution but rather in terms of reciprocal presupposition. The components of States may be products of an evolutionary process, but the State itself, as a mode of consistency, a way that the components are brought together and set in motion, has no lineage. Following Nietzsche, the Urstaat is said to occur all at once *like lightning*. Moreover, it is not just left at the origin but is reactivated everyday as immanent essence. The Urstaat is the "original abstract essence that is not to be confused with a beginning."(AO: 198) If as is commonly understood, there is an evolution of the State form, then the "second pole" i.e. modern distributed power, "the evolved pole must be in resonance with the first", the despotic pole, and "must continually recharge it in some way" since "the State must have only one milieu of interiority. . .a *unity of composition* in spite of all the differences in organization and development among States."(ATP: 427) Instead of progressive stages, Deleuze & Guattari see the machinic enslavement and the transcendent formal unity of the Despotic State as coexistent with the immanent axiomatic and social subjection of modern capitalist states.

3.2.2 Disciplinary Machines

“Western States are much more sheltered in their striated space and consequently have much more latitude in holding their components together; they confront the nomads only indirectly, through the intermediary of the migrations the nomads trigger or adopt as their stance.”(ATP: 385)

The modern nation state mutates in both its explosive and implosive dimensions. Capitalism forces the collapse of transcendent law into the immanent axiomatics of disciplinary normalization. The rule of the despot abstracts into the empty formalizations of the rule of law. Actualised as an irrigation system of power, Foucault's capillary network, the war machine passes from mere encastment into appropriation proper, accelerating through phase shifts to Total Mobilization, Total War and the Absolute Peace of nuclear deterrence. From the mercenary and clan markets of war into the anti-market of State monopolisation and megamachinic protection rackets. The whole disciplinary complex begins to resonate with the industrialisation of the war machine with its transformations of simple machines into thermodynamic engines.

To return to the initial problematic, what is at stake in Deleuze & Guattari's discussion of the physics-sociology nexus is a critique of 'work' as a production of the energetic irrigation of the State through the extraction of surplus value. As they put it, "During the nineteenth century, a two-fold elaboration was undertaken: of a

physicoscientific concept of Work [weight-height, force-displacement], and a socioeconomic concept of labour-power or abstract labour [a homogenous abstract quantity applicable to all work, and susceptible to multiplication and division]. . . society furnished an economic standard of measure for work, and physics a 'mechanical currency' for it. The wage regime had as its correlate a mechanics of force." [ATP: 490] Foucault's discussion of disciplinary microphysics details this precisely as the stratification of 'what a body can do', its 'power', into a space-time grid which finely subjects individual bodies into the machines of industrial society. Indeed for Foucault, this 'tactical' microphysics ['tactical' because it offers combinatory procedures in which the composition of forces exceeds the sum of their parts thereby supplying a reservoir for the extraction of surplus value] brings together a 'cellularized spatial distribution', and 'organic coding of activities' and a 'genetic accumulation of time' into the 'highest form of disciplinary practice.' [DP: 167] As Foucault, Deleuze & Guattari and Virilio all agree, this process of normalization was the basis of the military proletarianisation of the modern nation-state. This work-model does not, they argue derive from the war machine itself but is rather evidence of its appropriation and organization into the apparatuses of the State. Deleuze & Guattari give two basic reasons for this physicosocial model of Work; "First, because labour appears only with the constitution of a surplus, there is no labour

that is not devoted to stockpiling; in fact, labour [in the strict sense] begins only with what is called surplus labour. Second, labour performs a generalised operation of striation of space-time, a subjection of free action, a nullification of smooth spaces, the origin and means of which is in the essential enterprise of the State, namely, its conquest of the war machine.”[ATP: 490-491]

The morphology of violence of the European State is mapped out by Michel Foucault in *Discipline & Punish*. In detailing the parameters and permutations, Foucault takes us round the Sovereign-discipline-control circuit of power. Departing from the monolithic top-down conception of power, he emphasises the productive edge of processual power over the repressive. When the spectacular optics of the sovereign phase penalty of torture involutes into the generalised surveillance of the Panopticon, the Prison proliferates less for the purpose of punishing crime than in the exercise of a new bio-power- a productive power invested in the very production of delinquency.

Hence the particular character of State violence; it “creates or contributes to the creation of that which it is directed against, and thus presupposes itself.”(ATP: 447) This essence of State violence is not local to capitalism itself but instead testifies to the existence of an apparatus of capture which pre-dates the capitalist mode of

production. Hence what Marx terms the 'primitive accumulation' and the actualization of the virtual attractor immanent to primitive social machines. This attractor is a point which "already exists in the convergent wave that moves through the primitive series and draws them toward a threshold at which, after passing their limits, the wave itself changes direction."(ATP: 447) The State "overcodes the primitive codes, substitutes sets for the series" steering the flow of power, forcing its direction into to a convergence towards the despot.

It is in this way that State violence is always reformulated as a war against the criminal, the nomad or the primitive. It is a violence that "posits itself as preaccomplished, even though it is reactivated every day. . .the invitation is prior, pre-established.(ATP: 447) As a productive power, State or lawful violence "always seems to presuppose itself, for it pre-exists its own use."(ATP 448) The aggression which continually re-energizes the law is the echo of an original lamination of social flows, their comparison and appropriation. In capitalism the violence of the State is not "reducible to theft, crime or illegality. . .what is taken away from the worker is not something surface level; the capitalist 'does not limit himself to taking away or stealing, but extorts the production of surplus value, in other words, he first contributes to the creation of that from which he takes away. . .A part of the value created

without the labour of the capitalist can be appropriated legally by the capitalist, in other words, without violating the corresponding right to exchange of commodities.”(ATP: 568, n.39)

3.3.2 Terror Machines

“‘Asiatic’ production, with the State that expresses or constitutes its objective movement is not a distinct formation; it is the basic formation on the horizon throughout history.”(AO: 217)

In China, it is not only the history of insurgency theory which generated a hydraulics of war. The State itself, in appropriating the war machine, and giving war its object of violence, has its own flow chart. “Either the State has no war machine (and has policemen and jailers before having soldiers) or else it has one, but in the form of a military institution or public function.”(ATP: 427) In the appropriation of the swarmachine of nomadism, vortical hydraulics is channelled into the militarized irrigation system of the state. In his discussion of the pure State form of Oriental Despotism in Chinese Legalism, Massumi notes the State hydraulics of war in an economy of Total Power. Quoting an ancient legalist text; “Stopping the soldiers of his (an exemplary ruler’s) three armies was like cutting off their feet, (and) marching them was like flowing water.”(quoted in FLE 39) Massumi runs this through Deleuze & Guattari’s base hydraulics of war; “The soldiers in unified motion toward the unified aims of the State are like water flowing down a straight and narrow channel. They melt into a liquid body, continuous and without distinguishable organs. But the moment their ordered flow is stopped, organs appear and are in the

same stroke amputated. . .Water, however, does not naturally conform to straight and narrow channels, but has the lice-like tendency to flow 'without preference for any of the four sides'. . .Three of the four sides of natural water flow must have been stopped for the army to have begun its onward march. That means that feet must have already appeared/ been amputated. Even at its apogee, the moment of predatory attack, the war machine's unity is predicated on the dismemberment which prevents it (and which it is meant to prevent). Consolidated organization always entails fragmentation. Maximum flow requires extreme rigidity."(FLE: 39-40)

Following Wittfogel in his infamous *Oriental Despotism*¹¹⁸ when he "shows the degree to which modern capitalist and socialist States take on the characteristic features of the primordial despotic State."(AO: 220), Deleuze & Guattari in *Anti-Oedipus* term the State-Extreme the *machine of terror*. This social formation and its economy of violence is given a machinic diagram; it is a "functional pyramid that has the despot at its apex, an immobile motor, with the bureaucratic apparatus as its lateral surface and its transmission gear, and the villagers at its base, serving as its working parts."(AO: 194)

¹¹⁸ *Oriental Despotism: A Comparative Study of Total Power*, (1967) Yale University Press. Wittfogel's hydraulic despotism thesis has a controversial history in Marxism; this is outlined and critiqued in the relation to the Occidental

The technologies of pain of the primitive *cruelty machine* become integrated into the megamachine of the State which channels it, reduces it or amplifies it into unprecedented terror depending on the drift of the despot and his operations of legal overcoding. "Overcoding is the essence of the law, and the origin of the new sufferings of the body. Punishment has ceased to be a festive occasion [as in the cruelty machine and sacrifice] from which the eye extracts a surplus value. . . *Punishment becomes a vengeance. . .*"(AO: 212) As Deleuze & Guattari point out in their critique of State civilization and the self-evidence of the technologies of law and order, the "law's opposition or apparent opposition to despotism comes late - when the State presents itself as an apparent peacemaker between classes that become distinct from the State, making it necessary for the latter to reshape its form of sovereignty."(AO: 212) Taking up Nietzsche from the *Genealogy of Morality*, ". . .the law is the invention of the despot himself. . . *it is the juridical form assumed by the infinite debt.*"(AO: 213) It is only later that the law becomes allegedly "a guarantee against despotisms, an immanent principle that unites the parts into a whole that makes of this whole the object of a general knowledge and will whose sanctions are merely derivative of a judgement and an application directed at the rebellious parts."(AO: 212) As an

economics of intensity-irrigation the pyramidal despotic machine now takes “[a]ll the coded flows of the primitive machine. . .[and forces them] into a bottleneck, where the. . .[it]. . . overcodes them. *Overcoding* is the operation that constitutes the essence of the State, and that measures both its continuity and its break with the previous formations.”(AO: 198) The channelled building blocks of clans, tribes and packs do not disappear but persist, undergoing swerving mutation as components of the now much more extensive system of organization- they are “transected, supersected or overcoded by the despotic State. . .the territorial machine. . .[is reduced]. . . to the state of bricks, of working parts henceforth subjected to the cerebral idea. In this sense the despotic State is indeed the origin, but the origin as an abstraction that must include its differences with respect to the concrete beginning.”(AO: 219)¹¹⁹

As the gear which prevents/anticipates the implosion of megamachinic enslavement, punitive vengeance as expression of Imperial barbarian law is “exercised in advance” crushing “the whole primitive interplay of action and reaction. . .Passivity must now become the virtue of the subjects attached to the despotic

(1981), (eds) A. Bailey & J. Llobera, London Routledge.

¹¹⁹ Rather than just one formation among others, “the despotic State is the abstraction that is realized. . .only as an abstraction (the overcoding eminent unity). It assumes its immanent concrete existence only in the subsequent forms that cause it to return under other guises and conditions. Being the common horizon for what comes before and what comes after, it conditions universal history only provided it is not on the outside but always off to the side,

body.”(AO: 213) Punishment rivets bodies into the massive molar organization of flows, spreading ripples of terror through the machinically enslaved (obedience, prostration and fear) population through at one extreme spectacular violence and on the other, according to Wittfogel, the perhaps more effective “routine terror in managerial, fiscal, and juridical procedures that caused certain observers to designate the government of hydraulic despotism as ‘government by flogging’”(OD: 143) Total power is the State-Extreme morphing into as a suicidal war machine, the ‘pure violence’ of fascism.

The State dissolves into the momentum of a war machine taking violence as its object and turning it against everything in its course. By the original differentiation from the turbulent force-field of war, into the striated space of peace, the state forces an acceleration to extremity and hence the fluidification of technologies of total annihilation. It is again Massumi who provides the abstract flow chart of violence; “The more the law striates, the smoother things flow. The smoother things flow, the closer the centrifugal spiral comes to coinciding with the centripetal. The closer the centrifugal spiral comes to coinciding with the centripetal, the closer the source of all State flow comes to coinciding with its destination. The closer the source of State flows

the cold monster that represents the way in which history is in the ‘head’, in the

comes to coinciding with its destination, the more concertedly the State explodes through its only outlet. The more concertedly it explodes, the more forcefully it implodes. . .The simultaneity of the two movements is the end of the State- in both the chronological and metaphysical meanings of the word.”(FLE: 50-51) The impossible attainment of pure unity or Oneness is the time-bomb of any State system. Massumi maps this trajectory of the State in terms of a mega-vortex with its simultaneous divergent and convergent waves, looping the future with the past, hot-linking source of law with destination into an idealised flow of pure identity.

The terror machine is energised by the tension between striated and smooth space, between rigid segmentarity and lines of escape, between social unity and social division. In the despotic State, overcoding or striation masked as law, emanates from the immobile motor of the body of the despot, the eye of the storm. Waves of legal codification tax the social field, deterritorializing the collective property of the cruelty system into the public property of the Imperial bureaucracy, re-routing the flows back to the center. The population is loaded into the now organised war machine; as Massumi describes it; “Striation radiates waves to the periphery, then bounces off the wall and returns to the center in the form of a

‘brain’- the Urstaat.”(AO: 220-221)

smooth flow of goods and bodies channelled uninterruptedly into the army, which then flows out to meet the enemy.”(FLE: 41) This tension between deterritorialization and reterritorialization, between flux and re-flux animates the whole social field across which pulse the waves of sameness. As this oscillation approaches its limit with the corresponding disequilibrium between core and periphery, the rhythm of the oscillation accelerates and the intensity of its martial discharge surges. Massumi paints the Total state as a fusion reactor; “The interior becomes a quickening spiral of centrifugal waves of striation and centripetal smooth flows. At the center, the spiral of capture is converted into a line of fluid attack sent out in pulses. The aim is to accelerate the process to the point that the spiral melds with the line, and the pulses become continuous. As that ideal point, feet are liquefied and dismemberment is wholeness. . .The more explosively the State pushes outward, the more intensely it implodes. It is destined to self-destruct. The Legalist state is a suicide state. In this, and in the nature of the frenzied synthesis it attempts, it is quintessentially fascist.”(FLE: 41-42)

3.3 Cruelty Machines: routes from the jungle (and back)

The double bind in which the *primitive* is caught in modern political theory entails, on the one pincer, the harmonious origin of Rousseau or on the *other* the chaotic state of nature of Hobbes. It can generally be said that modern European thought organizes history around these two alternatives.

In the first case, if one subtracts the homeostatic teleology of social order and demystifies the idyllic autarky of the primitive, prioritising *base turbulence*, then "what is called history. . . [becomes]. . . a dynamic and open social reality, in a state of functional disequilibrium, or an oscillating equilibrium, unstable and always compensated, comprising not only institutionalised conflicts but conflicts that generate changes, revolts, ruptures and scissions, then primitive societies are fully inside history, and far distant from stability, or even from the harmony, attributed to them in the name of a primacy of a unanimous group."(AO: 150-151)

"We're tired of trees. . . they've made us suffer too much."(ATP: 15)

In the second case, we can take, for example, Immanuel Kant's essay Perpetual Peace. In order to justify the modern disciplinary apparatus of capture, he is forced to go tree planting; "Since, like a

tree, each nation has its own roots, to incorporate it into another nation as a graft, denies its existence as a moral person, turns it into a thing, and thus contradicts the concept of the original contract, without which a people has no rights.(PP 108) In this classic statement of the arborescence which transects the scales of molarity of the Man-State complex¹²⁰, the ground is constantly dissolving, ominous with latent turbulence, with tendencies to self-organise. Into these dynamics State civilization through the rule of law is built, emanating a root structure to solidify the savage flux of colliding bodies, and allow the erection of order; "Just as we view with deep disdain the attachment of savages to their lawless freedom- preferring to scuffle without end rather than to place themselves under lawful restraints that they themselves constitute, consequently preferring a mad freedom to a rational one and consider it barbarous, rude and brutishly degrading of humanity, so also should we think that civilised peoples (each one united into a nation) would hasten as quickly as possible to escape so similar a state of abandonment."(PP: 115) In such narratives, history is merely the history of the State, of the victory of civilization tending towards the normative equilibrium of *perpetual peace*. Molarity is "the imposition of *whole attractors*¹²¹ on a far more complex

¹²⁰ See Ch.5 for the woman-war complex.

¹²¹ As Massumi explains, a "whole attractor can be visualised as a distinct point at the end of a line. At both ends, actually; in classical thermodynamics, molecular instability departs from an entropic equilibrium and eventually returns to it. The process is reversible. The attractor state is virtual in so far as the instability that departs from it and tends toward it is concerned, but in theory it

reality.”(UG: 64) Modernity resides in the radiating waves of sameness which ripple through the multiplicitous planetary field, stimulating decoding and deterritorialization and an increasingly cybernetic recapture. Produce or die. The colonial West propelled forth from the tension between markets and Euro-states acquired an unlimited ethnocidal capacity. Capitalism is fuelled on the perpetual consumption of frontiers, the digestion of primitives; “At capitalism’s limit the deterritorialized socius gives way to the body without organs, and the decoded flows throws themselves into desiring production.”(AO: 139-140)

As Deleuze & Guattari point out in their critique of linear meta-narratives of history, “[a]ll we need to do is combine these abstract evolutions to make all of evolutionism crumble. . .”(ATP: 430) But they do more than merely deconstruct these meta-narratives of progress and civilization or simply discard them as ideology. Journeys from the jungle is the Occidental State’s story of civilization. Yet the deconstruction of this tale, ^{to} point to the founding violence of law *and* excavate the ghosts of every ‘other’ is, on one level, ethnocidal State philosophy’s last stand. In *A Thousand Plateaus* Deleuze & Guattari side-step the hypermorality of post-structuralism, writing that “European racism as the white

is actualizable. A fractal attractor, by contrast. Must be visualised as a mixed set of points- ‘dense points’, infinitely dense points. Each point corresponds to a potential global state of equilibrium (stable or metastable, classical or dissipative).(UG: 64)

man's claim has never operated by exclusion, or by the designation of someone as Other: it is instead in primitive societies that the stranger is grasped as an 'other.'" (ATP: 178) They go further, dragging non-state formations out of an idyllic or chaotic past into a virtual co-existence of social machinery based on a non-linear social physics. In relation to supple group formations, which from the perspective of State thought will always reside lower down the evolutionary scale, "superseded by the State or familial societies", Deleuze & Guattari argue that "[o]n the contrary there is a difference in nature, The organization of packs is entirely different from that of families and states, they continually work them from within and trouble them from without, with other forms of content, other forms of expression."(ATP: 242) History is flattened and becomes one vast dissipative system. Primitive violence is no longer unregulated chaos but "a special regime, even with respect to violence. For even violence can be submitted to a marginal ritual treatment, that is, to an evaluation of the 'last violence' in so far as it impregnates the entire series of blows (beyond which another regime of violence would begin."(ATP: 439) Primitive violence holds its own dynamic equilibrium, its own supple relations of force and power.

In a loop, any point is always secondary to the topological circuit. Therefore when Deleuze & Guattari take the primitive socius in

their historical topology as the first mode of social machine, it should not be taken to undermine their critique of evolutionism. The primitive territorial machine, has as its immobile motor the earth. The contrast between a technical machine and a mega or social machine is important: the technical machine implies an engagement between a human force and non-human force, a conjunction which extends human force; a social machine alternatively "has men for its parts, even if we view them with their machines. . . Hence the social machine fashions a memory without which there would be no synergy of man and his technical machines." In *Anti-Oedipus* it is constantly reiterated that the social 'machine' is not merely a metaphor, it is in actuality a machine in that it "exhibits an immobile motor and undertakes a variety of interventions, flows are set apart, elements are detached from a chain, and portions of the tasks to be performed are distributed. Coding the flows implies all these operations."(AO: 141) Exchange and circulation are not the key aspects of the primitive societies. Rather for Deleuze & Guattari, as their label, 'socius of inscription' suggests, the crucial thing is to mark or be marked- to envelop those organs capable of producing/breaking flows in a collective investment.

Rather than a progress from primitive segmentarity, in State space the segments become bricked in, rigidified, forced to resonate

hierarchically but continue to function horizontally on the molecular plane as self-organizing fluid masses rather than classes. "Supple segmentarity cannot be restricted to primitive peoples. It is not the vestige of the savage within us but a perfectly contemporary function. . ." (ATP: 213) Or rather, twisted up in a topological loop or Moebius strip, "one no longer really knows what comes first, and whether the territorial machine does not in fact presuppose a despotic machine from which it extracts the bricks or that it segments in its turn." (AO: 220)

In the primitive machine, as conceptualised by Deleuze & Guattari, prohibitions therefore deprive a specific group/individual the right to indulge a collectively invested organ; they constitute "a system of evaluations possessing the force of law concerning the various members and parts of the body. Not only is the criminal deprived of organs according to a regime of collective investment; not only is he the one who has to be eaten, eaten according to social rules as exact as those followed in carving up and apportioning a steer; but the man who enjoys the full exercise of his rights and duties has his whole body marked under a regime that consigns his organs and their exercise to the collectivity." (AO: 144) In ceasing to become a biological being served by biological memory, the socius creates a new collective memory, a memory of words and signs. The primitive territorial machine constitutes what Nietzsche calls a

mnemotechnics, a system of cruelty which inscribes its signs directly on the body. This cruelty is not some kind of pre-social barbarity or natural violence which *the routes from the jungle* story relates. Because a single internal act of violence can through vengeance, escalate to divisive catastrophe, the primitive machine employs the mechanism of *sacrifice*¹²² to prevent contagion, to code the flow of impure blood. In contradistinction to the dampening systems of state capture systems, primitive social machines have no surefast function for dealing with an outbreak of violence, no efficient techniques of re-equilibration. The social technology of sacrifice plays the essential role in the sense that it is preventative. Sacrifice, or the production of the sacred, involves rites which displace the violence of the community onto the one. Ritual codes the flows of violence, purifying the blood of the

¹²² Anthropologist Rene Girard makes the connection between the socio-religious machinery of sacrifice, cultural disorder and chaos. His theory of the scapegoat maps an undulating terrain populated by swirling cyclones and twister, which emerge surrounding points of strange attractions. Serres processes Girard through his social physics so that the theory of the scapegoat morphs into eddies and vortices; "in the middle of the demi-cone or at the center of the vortex, lies the object of hate, the subject of proscription. . . Multiplicity shoves its noise onto the one. It crystallizes the noise. No longer a multiplicity, no longer noisy, it is one globally, it is a single chorus, it is one locally, the center, the midpoint, the navel of the vortex: the eye. The eye of the storm."(60) For Girard the function of sacrifice is to restore order to the community, to restore the social fabric. This is based on what he terms a fundamental truth about violence; if left unappeased, it will accumulate until it overflows it confines and floods the surrounding area. The role of sacrifice is to stem this rising tide of indiscriminate substitution and redirect violence into proper channels. Girard 1977 10. The bifurcation of an initial flashpoint, for Girard, brings forth the potential of a cascade effect whereby a chain reaction occurs tending towards catastrophe due to reciprocal acts of revenge. The substitution which is enacted by machinery of ritual sacrifice to break the chain, codes the nonsacrificable in distinction from the sacred; "between these victims and the community a crucial social link is missing, so they can be exposed to violence without risk of vengeance."(130) And this escalating chaos, checked by sacrificial practices is manifested by inter-tribal vendettas and blood feuds.

arbitrary scapegoat, so as to quash the spreading fire of vengeance. Controlled implosion; "it is the bad debtor who must be understood as if the marks has not significantly 'taken', as if he were or had been unmarked. He has merely widened, beyond the limits allowed, the gap that separated the voice of alliance and the body of filiation, to such a degree that it is necessary to re-establish the equilibrium through an increase in pain."(AO:191)

Again following Nietzsche's *Genealogy of Morality*, for Deleuze & Guattari the category of debt is crucial to understanding economies of violence. *At the heart of power relations is indebtedness*. In relation to the primitive chiefs obligation of generosity, there is profound inequality of society and the chief in that his obligation of generosity is, in fact, a duty, that is to say, a debt. The leader is in debt to society precisely because he is the leader. It is to refuse the separation of power from society that the tribe maintains its chiefs indebtedness; it is society that remains the holder of power and that exercises it over the chief. Power relations exist in the form of debt that the leader must forever pay. Clastre adds that the nature of society changes with the directions of the debt. If debt goes from the chieftanship towards society, society remains undivided, power remains located in the homogenous social body. If on the contrary debt goes from society toward chieftanship, power has been separated from society and is concentrated in the

hands of the chief, the resulting heterogeneous society is divided into the dominating and the dominated. This rupture is produced when the directions of debt is reversed, when the institutions turn power relations to its profit against society, thus creating a base and summit towards which the eternal recognitions of debt climbs ceaselessly in the name of tribute.¹²³ The despot and infinite debt. 'Striking like lightning' the State comes from outside, overcoding the supple segmentarity of the primitive machine. Pushed far from equilibrium, the band formation fluidifies and attains pure volatility. Massumi explains the physics of this transition; "In the presence of a disturbance, or 'noise, the supple structure will either move toward a new order or back to its disordered past. A double bifurcation: life or death, and if life, this state or that. The path selected is a function of the interaction between the particular disturbance and the particular correlations the liquid has developed. In other words, it is a function of its past as enveloped in its locally-globally correlated substance and the future arriving from outside."(UG: 62)

The primitive machine is framed by Pierre Clastre⁵ in his ethnography of Amazonian Indians, as *a society against exchange, against economy, and against the State. Primitive war* is the principle mechanism *warding off the State* in that it maintains the

¹²³ 116 Clastre 1994.

opposition and dispersion of small segmentary groups. Primitive war uses violence as a resource and hence it does not become autonomous as a machine, even when it is comprised of a specialised body. Primitive war is not caused by a predatory economy of pre-sociality, poor economy or exchange economy. The naturalist reduction of the aggression of primitive war to that of predatory animals, to hunting elides the fact that even in cannibal tribes, war enemies are not necessarily primarily killed for consumption. *Just as* unhelpful is the historical materialist story which sets primitive economy at degree zero of technological and productive development in order to reduce primitive war to a result of scarcity. But primitive war is not a result of poverty. Clastres emphasises that 'primitive society is a machine of anti-production'(AV: 118) to show that there is a *virtual-potential* of the production of surplus, but since it is a society against social division or against accumulation, economy is merely a political tool to satisfy needs.

Contrary to structuralist anthropology which points to 'commercial exchanges as potential wars peacefully resolved and war as the outcome of unfortunate transactions,' neither can primitive war be reduced to exchange. To set up the binary opposition between an essence(exchange and non-essence(war) of primitive machines is to strip war of any positive function. While Hobbes underplayed the

role of exchange, Levi-Strauss neglects the positive role of war (AV: 152). Crucially, for Clastre, because of the autarkic domestic mode of production, the insecurity of territory is not fundamental to war until there is an agricultural surplus worth fighting for. By not engaging the potential to accumulate, the primitive machine wards off the threshold of the State, of social division. Indeed primitive war is clearly seen by Clastre as the primary mechanism warding off this machinic death. To lock in its warrior gear, the primitive machine uses a logic of prestige. This is necessary because machinic mutation to continuous and actualised warrior mode, Clastre argues, threatens the social non-division, it wards off the danger of being dragged behind an emergent nomadic engine of war. Such a mutation threatens its self reliance since in warrior mode, the production of children by women drops off and the economy becomes increasingly dependent on the spoils of pillaging and looting (of goods, equipment and children.)

While conservative, the primitive territorial machine is not inert. Conversely, the primitive machine is in perpetual movement. Its dynamism is apparent as it opens itself to the outside in the extreme intensity of war. The possibility of war is inscribed in the being of primitive society. Primitive machine coding envelops an equilibrium and disequilibrium; "it is a blow-by-blow violence, which is not without its code since the value of the blows is fixed

according to the law of the series, as a function of the value of the last exchangeable blow, or of the last woman to conquer, etc. Thus there is a certain ritualization of violence.”(ATP: 447-8)

This *centrifugal logic*, a *logic of the multiple*, which effects the segmented distribution of groups has as its opposite a *centripetal force*, the logic of unification the logic of one. By remaining under the sign of its own law, it refuses the logic which would lead it to submit to an exterior law. It is opposed to the *exteriority* of the unifying law. The legal power that embraces all differences in order to suppress them, that exists precisely to abolish the logic of the multiple and substitute it with the opposite logic of unification is the *State*, the apparatus of capture.

The State is therefore the total sign of division of society in that it is a separate organ of political power. Social division and the emergence of the State mark the death of the primitive *socius*. External segmentation internal non-division are two faces of a single reality. Refusal of the State is the refusal of submission, of economy, of exterior law, of alienation. The more war there is, the less unification there is, and the best enemy of the State is war. War attacks the State and the State captures war. The error is to believe that a society which persists in a virtual perpetual war is not a society.

The primitive/State threshold effect makes continuous, progressive development unthinkable for Clastre. Rather than a continuum of history, the key questions become for Clastre: "why does primitive society cease at a certain moment to code the flow of power? Why does it allow inequality and division to anchor death in the social body which it had until then warded off?" (AV: 116)

Deleuze & Guattari depart from Clastre's position in the *Archaeology of Violence and Society against the State*, indicting him for an ironic oversight. They indict him for his neglect of archaeology. However, Clastre's work is important for his break with evolutionist paradigms. Firstly, Deleuze & Guattari agree with Clastre that the State is not explainable with reference to what it presupposes i.e. a development of productive forces and a differentiation of political forces. Rather, "the State seems to rise up in a single stroke, in an imperial form, and does not depend on progressive factors" (ATP: 359) Secondly, they agree that the war machine is directed against the State, potential or actual. But the war machine is properly the discovery of 'barbaric' assemblages of nomadic warriors rather than 'savage' assemblages of primitive societies. Since the war machine is organised against the State, war, as with politics and economy, can only give a reductive account of State formation. So Clastre locates a rupture between 'primitive' counter-State societies and 'monstrous' State societies.

Considering the mechanisms primitive societies had at their disposal, he probes the question of why the State arose in terms of the problem of 'voluntary servitude'. But it is in his attempt to deal with this crucial issue that Deleuze & Guattari believe Clastres remains an evolutionist postulating a state of nature (even though his state of nature was a fully social reality instead of a pure concept, the evolution being a sudden mutation rather than a development). In insisting on the autarky, the self-sufficiency and equilibration of primitive societies, "he made their formal exteriority into a real independence." (ATP: 359) For Deleuze & Guattari, Clastres's two propositions are correct; "on the one hand, the State rises up in a single stroke, fully formed, on the other, the counter-State societies use very specific mechanisms to ward it off; to prevent it from arising." (ATP 359) But while, as Clastres shows, bands or clans are no less organised than empire/ kingdoms, evolutionism is not escaped by positing the sudden emergence of the State.

Rather, drawing from archaeology, Deleuze & Guattari point out that there has always been a State, the Urstaat; "the State itself has always been in a relation with an outside and is inconceivable independent of that relationship. The law of the State is not of All or Nothing (*State societies* or *counter-State societies*.) but that of interior and exterior. . . The outside appears simultaneously in two

directions: huge world-wide machines [commercial, industrial or religious] branched out over the entire ecumenon at a given moment, which enjoy a large measure of autonomy in relations to the States. . . but also the local mechanisms of bands, margins, minorities which continue to affirm the rights of segmentary societies in opposition to the organs of State power.”(ATP: 360)

Crucial to this analytic cartography is the principle of ‘reverse causality’; it testifies “to an action of the future on the present, or of the present on the past. . .which implies an inversion of time. More than breaks or zig zags, it is these reverse causalities that shatter evolution.”(ATP: 431) Given this, one can say that the State was “already acting before it appeared, as the actual limit these primitive societies warded off, or as the point towards which they converged but could not reach without self-destructing. These societies simultaneously have vectors moving in the direction of the State, mechanisms warding it off, and a point of convergence that is repelled, set outside, as fast as it is approached. To ward off is also to anticipate. Of course, it is not at all in the same way that the State appears in existence, and that it pre-exists in the capacity of a warded-off limit; hence its irreducible contingency.”(ATP: 431)

It is then, contrary to dialectical materialism the State that makes production a mode, that generates agriculture, the division of labour and not vice versa. The primitive machine while firmly territorialized is a dynamic system operating within a phase space. Defining the boundaries of the phase space of a pendulum, for example, are the attractors of its limit cycle and fixed point. If the pendulum is sustained by an exterior force, it repeats converging towards its limit cycle. If no exterior force is applied, if its motion is not sustained it converges toward a fixed point. Consolidating the Deleuze & Guattari/turbulence theory nexus, Massumi explains that the "potential tensions and trajectories defined by that set of dense points is the system's plane of immanence or consistency; its level of virtuality. Scientists express the phenomenon's plane of consistency as the its 'phase space': the sum total of the systems' movement and moments contracted into the same set of diagram co-ordinates. Each co-ordinate axis corresponds to independent variable, and each co-ordinate to a potential state combining those variable co-ordinates around which potential states cluster and dense points or attractor states."(UG: 67) Within this space its future movement is only statistically diagrammable because it is contained in the attractors. "Complete, predictive knowledge is a myth. The perpetual invention called 'history' paces a void of objective indeterminacy."(UG: 67) A phase space is always anexact, indeterminate and fractal. Similarly, the relation between

the State and the primitive socius is thus understandable in terms of two inverse 'moments' or 'waves'- one prior to the rise of the State in which the hunter-gatherers are brought to a point of convergence destabilising the prevailing socius, the other subsequent to its manifestation whereby the State apparatus generates agriculture, the division of labour and animal farming. Primitive war acts as a mechanism to ward off that point of convergence, the bifurcation of an autarkic undivided socius. In order to take history out of a narrative of succession, Deleuze & Guattari engage the notion that events from the future are in some sense active in the present, that social machines anticipate their outside, navigating through chaotic fields of bodies and points of unpredictable convergence known in chaos theory as *fractal* or *strange attractors*. By 'attractor state' we mean, following Massumi a "state toward which a system tends."(UG: 61)

This is a crucial move in that it peels away State teleology to give an energetic account of these processes of ordering and hierarchalization without recourse to the normative discourse of politics, law and morality. The social topology therefore allows us to understand the flux of postmodern violence, to the components and velocities of the world system, without the State philosophical imperative to legislation which in European thought has guided theoretical analyses of violence.

sector 4. Programmed Catastrophe: ultraterror, machinic postmodernism and political catastrophe theory

**“Stability is always metastability, a controlled state of
volatility.”(UG: 60)**

4.1 States of Emergency

If *turbulence simulation* is the abstract dynamic of cybernetic control, then *programmed catastrophe* is control losing control, unintended consequences feeding back to disturb the order of populations in postmodernity. It corresponds to C3I or the military-scientific complex which proliferates the cybernetic concretisation of 'pure war'; it is as Deleuze & Guattari describe it, “a new conception of security as materialised war, as organized insecurity or molecularized, distributed, programmed catastrophe.”(ATP: 467)

The ambivalence of the concept of *simulation* is a crucial feature in understanding cybernetic control societies. This chapter will map out the openness of simulation through a discussion of Virilio's perspective on contemporary terrorism and the Gulf War and its tensions and convergences with Jean Baudrillard's theorisation of simulation and his analysis of postmodern violence. For Virilio the base logic of *programmed catastrophe* consists of an accelerating convergence between control and control malfunctions; as he writes in one essay, “the simulators of a new society organized

entirely around the requirement to react to catastrophe with the greatest possible speed. . .”(PA: 217) A race against the clock, the “new laws of the State will be wholly inspired by the operation of rapid engines: a succession of prohibitions and limitations the aim of which is to avoid accidental hazards, in the exact manner of the nuclear countdown.”(PA: 217) We will firstly briefly examine the social tracings which are produced by the apparatuses of security, zooming into systems of capture ‘far from equilibrium’, i.e. states of ‘emergency’ in the broadest sense of this phrase. To understand this general concept of emergency, Virilio’s theory of the accident and its relation to simulation will be outlined. Concluding this section, it will be seen that both Virilio and Baudrillard’s discussions of terrorism can most profitably be situated along this continuum of emergency.

4.1.1 Channels of Security

The forces of postmodern law and order perceive turbulence as varying magnitudes of *accident*, degrees of deviation, and at its extreme, forces the mutation of the State into the ‘state of emergency’. For this reason, Virilio seems to base his examination of control in cybernetic states on the relation of the *accident* to system stability in the axiomatics of late capitalism. As we noted earlier, Paul Virilio defines the base function of the police, or the anti-implosive affects of the State as *highway patrol*, an overcoding

of transport and communication channels, an overcoding of the social flow of bodies, substances and machines.

As Nick Land puts it, this *Human Security System* consists of a multi-scalar system of striated space run on a logic of boundary policing which stretches from the flow of chemicals into an individual or population's nervous system to the illicit flow of weaponry across police jurisdictions. Land terms these fortresses of varying sizes, 'PODS' or 'Politically Organized Defensive Systems'. They are, he continues, "modelled upon the polis, pods hierarchically delegate authority through public institutions, family and self, seeking metaphorical sustenance in the corpuscular fortification of organisms and cells. The global human security allergy to cyberrevolution consolidates itself in the New World Order, or consummate macropod, inheriting all the resources of repression as concrete collective history."¹²⁴ The megamachinic skin discussed in Sector 3 is a planetary carceral continuum.

Just as Michel Foucault argues that properly speaking, the prison is a modern invention, Pasquino contends that the *police*, as it is now known, emerged out of a more basic function born in conjunction with the modern disciplinary form of power as it is described by Foucault. Complementing the appropriation of the war machine by

¹²⁴ 471 (1993) N. Land, *Machinic Desire*.

the modern nation state comes a science of *police*, a science targeted at the "maintenance of order and prevention of dangers."¹²⁵ This notion of police is a relatively late invention, dating from the late eighteenth or early nineteenth century, engaging productive strategies of regulation of the social field, synchronising with wider processes of stratification and their experimental excursions of the State. For as Pasquino writes, "one can picture the field of intervention of police regulations as like the vacant lots of the city, the formless provinces of a vast kingdom, a sort of no man's land comprising all those areas where the feudal world's traditional customs, established jurisdictions and clear relations of authority, subordination, protection and alliance cease to rule. Within the formless 'monster', the police thinkers called the Holy Roman Empire, there are indeed still islands of order and transparency; not everything in the ancient society or orders and estates requires regulating; but does not what escapes it cry out for intervention?"¹²⁶ Disciplinary governmentality, in Foucault's terms, emerges to meet this need.

Governmentality takes as its object the population as an abstract statistical ensemble of *individuals*, and that ensemble's health and prosperity. Governmentality is the political technology of modern *machinic subjection*. As Foucault argued, this power stretches far

¹²⁵ p109 in P. Pasquino in C. Gordon (ed) (1991) *The Foucault Effect*, London:

beyond a purely juridical conception. Law becomes only one among several assemblages of control. Through the general transition to disciplinary power, law is dragged behind the base turbulence unleashed by capitalism's tendency towards decoding and deterritorialization. It is now no longer a law handed down from the top of the pyramid but the distributed power of the carceral continuum. Again Pasquino; "The prescriptions or regulations of police are instruments of this work of formation, but at the same time they are also products of sort of spontaneous creation of law, or rather of a demand for order which outreaches law and encroaches on domains never previously occupied, where hitherto neither power, order nor authority had thought to hold sway." ¹²⁷

This experimental nature of the police components of the State is most clearly seen when States mutate to an emergency function. The captured and militarized war machine emerges through the striations of law and order, short circuiting slow motion macro-politics into an autonomy of means. Giorgio Agamben argues that "whereas the sovereign is the one who, in proclaiming a state of emergency suspending the validity of the law, marks the point of indistinction between violence and law, the police operate in what amounts to permanent 'state of emergency'. The principles of 'public order' and 'security', which the police are under obligation to

decide on a case-by-case basis, represents a zone of indistinction between violence and law perfectly symmetrical to that of sovereignty."¹²⁸ Agamben's argument is that the *police function* is revealed more than any other time in the State of emergency.

Extending Virilio's notion of police as highway patrol, we could say that the street, as surface of population flow, is the fluid terrain which serves as the primary object of security. However in postmodernity, the primacy of the street as contested terrain of transfer is questionable. In a recent interview with Mark Dery in *Mute* magazine, the Critical Art Ensemble attack what they see as Deleuze & Guattari's (and therefore implicitly Virilio's argument in *Speed & Politics*) alignment between *nomos* and the street, and correspondingly of the *logos* with the State. They contend, and this point will be discussed later, that in postmodernity there persists examples of emergent, nomadic urban potential, for example, Tiananmen Square or the LA Riots. However, from the mid-80s, "the streets were no longer a seething pool of potential resistance, but relative to the environment of the virtual class, a low-velocity sedentary structure."¹²⁹ They suggest that while Deleuze & Guattari were correct in showing how there is a *logos and an anti-logos*,

¹²⁶ P111 *ibid.*

¹²⁷ p111 *ibid.*

¹²⁸ p62 in 'The Sovereign Police', (1993) in B. Massumi (ed) *The Politics of Everyday Fear*, University of Minnesota.

¹²⁹ CAE in *mute* issue 10 p.33.

militarized discipline against oppositional militarized discipline, they neglect to show how there is a *nomos and anti-nomos*.

The direction of the Critical Art Ensemble point is valid but they fail to pick up on Deleuze & Guattari's discussion of micro-fascism, particularly how there is nothing necessarily revolutionary about smooth space. They maintain throughout *A Thousand Plateaus*, for example that a rhizome can function for control as much as escape or becoming. Just as much as advocating rhizomatics as a nomadic strategy, they warn of *rhizomania*. Moreover, Deleuze & Guattari's discussion of the State should be understood more like Foucault's capillary network of distributed power instead of the centralised conception of macropolitics. In this way, their cartography can provide the tools to mapping the dynamics of cyberspace, particularly how *decentralisation* now has a control function.

ms Control far from equilibrium^{is} the dream of postmodern security experts and the peculiar logic of *programmed catastrophe*.

4.1.2 The General Accident: liquid reality

Virilio's theory of the accident can be usefully coupled with Deleuze & Guattari's machinic postmodernism. Stripping away the remnants of transcendence, they state that "it is in order to function that a social machine must not function well." (AO:151) In this mutant neo-functionalism, megamachines function by breaking down; "Far

from being a pathological consequence, the disequilibrium is functional and fundamental.”(AO: 150) Turning the perspective of State philosophy upside down to reveal the libidinal infrastructure which deposits the social, function is dismantled shifting the focus on accidents as productive singularities driving the futureshock braking system¹³⁰ of the strata. Social systems, both of the hierarchical and meshwork variety emerge from the bottom up haphazardly, accidentally. In *Anti-Oedipus* they perceived this of primitive machines but it is extended to the coexistent continuum of social segmentarity so that in their formulation, the “social machine’s limit is not attrition, but rather its misfiring; it can operate only by fits and starts, by grinding and breaking down, in spasms of minor explosions. The dysfunctions are an essential element of its very ability to function, which is not the least important aspect of the system of cruelty. The death of the social machine has never been heralded by a disharmony or a dysfunction; on the contrary, social machines make a habit of feeding on the contradictions they give rise to, on the crises they provoke, on the anxieties they *engender*, and on the infernal operations they regenerate. Capitalism has learned this and has ceased doubting itself, while ever socialists have abandoned belief in the possibility of capitalism’s natural death by attrition.” Again attacking a dialectical model of history evolution they conclude that

¹³⁰ Kodwo Eshun invents the concept of the ‘futureshock brake’ as cultural

"No one has ever died from contradictions, And the more it breaks down, the more it schizophrenizes, the better it works, the American way."(AO: 151) As was argued in Sector 3, *machinic postmodernism* opts for a fluid cybernetics of history rather than dialectics.

Programmed catastrophe is control acknowledging non-linear feedback processes and attempting to harness them to a higher order global equilibrium. It feeds a New World Disorder which needs controlled chaos. As Virilio puts it, it "is no longer a question of hiding an accident or failure, but of making it productive. . ."(PA: 215) Virilio demands that we reassess the traditional philosophical tenet which holds that the "accident is relative and contingent and *substance* absolute and necessary. The word *accident*, derived from the Latin *accidens*, signals the unanticipated, *that which unexpectedly befalls* the mechanism, system or product, its surprise failure or destruction. As if the failure were not programmed into the product from the moment of its production or implementation. . ."(PA: 211)

In his writings about the Gulf War, Baudrillard extends the same point into a discussion of virtual reality and simulation; "The most widespread belief is in a logical progression from virtual to actual,

dampening system in *More Brilliant than the Sun: Adventures in Sonic Fiction*,

according to which no available weapon will not one say be used and such a concentration of force cannot but lead to conflict. However, this is an Aristotelian logic which is no longer our own. Our virtual has definitively overtaken the actual and we must be content with this extreme virtuality which, unlike the Aristotelian, deters any passage to action. We are no longer in a logic of the passage from virtual to actual but in a hyperrealist logic of the deterrence of the real by the virtual.”(GW: 27)

Pointing to the nexus between the mode of production and the mode of destruction, Virilio importantly maintains that the “production of any ‘substance’ is simultaneously the production of a typical *accident*. . .”(PA: 211) It follows from this that “breakdown or failure is less the deregulation of production than the *production a specific failure, or even a partial or total destruction*.”(PA: 211) Corresponding to Virilio’s critique of the *speed* culture of militarized capitalism which has generated the species accident of total nuclear annihilation, he calls for a realignment of investigation from progressive technological development to what he calls a “prospective of the accident.” If the accident is embedded virtually within every technological innovation, Virilio suggests that “we could reverse things and directly invent the accident in order to determine the nature of the renowned ‘substance’ of the implicitly

discovered product or mechanism, thereby avoiding the development of certain supposedly accidental catastrophes.”(PA: 211)

In his discussion of accidents, Virilio holds onto a dialectical model of production and destruction, the State and the war machine, substance and accident. However, from the perspective of *base turbulence*, Virilio’s analysis as a positivization of the accident can be plugged into Deleuze and Guattari’s machinic postmodernism. Virilio writes that this “inverse perspective on the *primal accident* which recalls certain myths and cosmogonic hypotheses¹³¹ (Big Bang, the Flood etc.) seems in fact to be the *dialectic of war*, in other words of weapon and armour; the dialectic arises with the strategic emergence of the ‘war machine’ in the immediate vicinity of the ramparts of the ancient Greek ‘citadel State’ which gave rise to another innovation at the same time as Athenian politics - *poliorcetics*, the new science of attacking and defending fortified cities, which lies at the origin of the art of war’, in other words of the evolution of the *production of mass destruction* through the ages, but especially through progress in weapons techniques. As with his critique of speed, Virilio traces the darkside of the Occident through a succession of accidents.

¹³¹ As Paz puts it “Christian morality has given its powers of repression over to it [the accident], but at the same time this superhuman power has lost any pretension to morality. It is the return of the Anguish of the Aztecs, without any celestial signs or presages.” 111 *Conjunction & Disjunctions*.

But when he describes the confrontation of the State and war machine, this can be abstracted to the collision of smooth and striated space inhabited by turbular and laminar flows of bodies and technics. The fractal coastline which separates the State from the war machine perpetually ripples with the emergence of dissipative structures in the flow of matter-energy. On the machinic phylum, what Virilio terms the dialectic of weapon and armour can be thought of a non-linear game of escalation - it is more helpful to place weapon and armour in a system, since the most intelligent art of war opens itself to the fluidity or the landscape mapping the system's energetic flow chart. Turbulence simulation attempts for C3I through the modelling on nonlinearity, to capture the feedback processes with which a dialectical frame cannot deal. Virilio is certainly correct when he peels back the megamachinic skin of scientific and industrial production to see its own process of production from the darkside.

For Virilio therefore, scientific capitalism is in a sense "fallout", of the development of the means of destruction of the *absolute accident of war* of the conflict pursued down through centuries in every society, irrespective of its political or economic status - *the great time war* that never ceases to *unexpectedly befall us* time and again despite the evolution of morals and the means of

production and whose intensity never ceases to grow at a pace with technological innovations, to the point that the ultimate energy, nuclear energy makes its appearance in weapon that is simultaneously an arm and its absolute accident of History.”(PA: 213) The ‘great time war’, the ‘race against the clock’ plummets postmodernity . towards not just the accident of History, but as Virilio later explains, the accident of reality itself¹³².

When Baudrillard touches on the logic of the accident in *Symbolic Exchange & Death*, he relies on the thoughts of Octavio Paz whom

¹³² As Virilio notes in an interview; “One may surmise that, just as the emergence of the atomic bomb made very quickly the elaboration of a policy of military dissuasion imperative in order to avoid a nuclear catastrophe, the information bomb will also need a new form of dissuasion adapted to the 21st century. This shall be a societal form of dissuasion to counter the damage caused by the explosion of unlimited information. This will be the great accident of the future, the one that comes after the succession of accidents that was specific to the industrial age (as ships, trains, planes or nuclear power plants were invented, shipwrecks, derailments, plane crashes and the meltdown at Chernobyl were invented at the same time too. . .)

After the globalisation of telecommunications, one should expect as generalised kind of accident , a never-seen-before accident. It would be just as astonishing as global time is, this never-seen-before kind of time. A generalised accident would be something like what Epicurus called “ the accident of accidents.”[and Sadam Hussein surely would call the ‘mother of all accidents” trans] The stock market collapse is merely a slight prefiguration of it. Nobody has seen this generalized accident yet. But then watch out as you hear talk about the ‘financial bubble’ in the economy; a very significant metaphor is used here, and it conjures up visions of some kind o cloud, reminding us of other clouds just as frightening as those of Chernobyl.

When on raises the question about the risks of accident son the information (super) highway, the point is not about the information in itself, the point is about ht e absolute velocity of electronic data. The problem here is interactivity. Computer science is not the problem, but computer communication, rather the (not yet fully known) potential of computer communication, .In the United States, the Pentagon, the very originator of the Internet, is even talking in terms of a ‘revolution in the military’ along with a ‘war of knowledge’, which might supersede the war of movement in the same way as the latter had superseded the war of siege, of which Sarejevo is such a tragic and outdated reminder.”(Speed & Information: Cyberspace Alarm)

in an extensive quote explains how “[m]odern science has eliminated epidemics and has given us plausible explanations of other natural catastrophes; nature has ceased to be the depository of our guilt feeling; at the same time, technology has extended and widened the notion of accident and, what is more, it has given it an absolutely different character. . .Accidents are part of our daily life and their shadow peoples our dreams. . .The uncertainly principle in contemporary physics and Godel’s proof in logic are not equivalent of the Accident in the historical world...Axiomatic and deterministic systems have lost their consistency and revealed an inherent defect. But it is not really a defect: it is a property of the system, something that belongs to it as a system. The Accident is not an exception or a sickness of our political regimes; nor its it a correctable defect of our civilization: it is the natural consequence of our science, our politics and our morality. The Accident is part of our idea of progress. . .The Accident has become a paradox of necessity; it possesses the fatality of necessity and at the same time the uncertainty of freedom. The non-body, transformed into materialist science, is a synonym for terror: the Accident is one of attributes of reason we adore.”¹³³

C3I is the name for a global war machine which inhabits not just the smooth space of the oceans, the desert and the sky but now

¹³³ Paz 111-113 *Conjunctions & Disjunctions* quoted in J. Baudrillard (1993)

also cyberspace. It is cyberspace or virtual reality which both Virilio and Baudrillard, in their discussion of simulation, describe as the accident of reality. For Virilio, with his Catholicism too overpowering to resist abject melancholy, "[virtuality] will destroy reality. So, it's some kind of accident, but an accident of a very different nature. . .The accident is not the accident.; For instance, if I let his glass fall is it an accident? No, it's the reality of the glass that is accelerated, not the glass itself. The glass is certainly broken and non longer exists, but with a flight simulator, what is accidented is the reality of the glass, and not the glass itself; what is accidented is the reality of the whole world. Cyberspace is an accident of the real. Virtual reality is the accident of reality itself."¹³⁴ Virilio believes that Baudrillard's discussion of simulation is misleading. Instead of simulation which he takes to be outdated conceptually, Virilio prefers a notion of 'substitution'; "I hold a virtual glass with a data glove¹³⁵, this is no simulation, but substitution. . .As I see it, new technologies are substituting a

Symbolic Exchange & Death, London: Sage.

¹³⁴ *Cyberwar, God & TV*. Elsewhere Baudrillard describes Virilio as "an analyst of a kind of catastrophic time, of speed. But he remains an optimist . . .mmmnn. . . Well, he is a Christian. He is a Christian!(laughter) This is not an argument, no. . ."(SW: 91-92)

¹³⁵ A problem with Virilio's discussion of cyberspace here is that it is based solely on the simulation of visual stimuli - For Virilio "the accident is shifting. It is no longer occurs in matter, but in light or in images. A cyberspace is a light show. Thus, the accident is in light not in matter. The creation of a virtual image is a form of accident. This explains why virtual reality is a cosmic accident. It's the accident of the real."(*Cyberwar, God & TV*) Hallucinations are not just visual but can be sonic, tactile etc. A satisfactory discussion of the accident of the real must take the other dimensions of cyberspace which make it more than just the extension of 2000 years of Occidental idealism.

virtual reality for an actual reality. And this is more than a phase; it's a definite change. We are entering a world where there won't be one but two realities: the actual and the virtual. Thus there is no simulation but substitution."¹³⁶

Virilio helps to clarify what Deleuze & Guattari understand by the relation of capitalism to schizophrenia. For Virilio with this accident of the real, 'everybody is wounded' by the warping of reality. "The mad person is wounded by his or her distorted relationship to the real. Imagine that all of a sudden I am convinced that I am no longer Virilio, but Napoleon. My reality is wounded. Virtual reality lends to a similar de-realization. However, it no longer works only at the scale of individuals, as in madness, but at the scale of the world."¹³⁷

Perpetually troubling the planetary carceral continuum and its psychic crusting is a fluid outside. *Programmed catastrophe* attempts to model this dynamic exterior, it attempts to control the uncontrollable, *to shape the future*. Postmodern control consolidates as continuous risk assessment exercises on a scale of danger. As Francois Ewald argues, societies organized around risk cannot be understood ^{through} the binary logic of modern juridical thought. Rather, "[a]ll it knows is the endless chain of discrete quantities. .

¹³⁶ Ibid.

.The moment a population is identified as a risk, everything within it tends to become - necessarily becomes - just that. . .prevention. . .exists in a virtual state before being actualized in an offence, injury, or accident. . .For a long time, the domain of risk was co-extensive with that of the insurable. By its very nature, however, it tends to exceed the limits of the insurable in two directions: toward the infinitely small-scale (biological, natural, or food related risk), and toward the infinitely large scale (major technological risks or technological catastrophes. . .) At first glance, these two extremes have nothing in common. What brings them together, is that unlike insurance risks, they not only affect a life or a body as capital, but also have an impact on the body's biological existence, its ability to reproduce."¹³⁸

4.1.3 Ultraterrorism

A cartography of postmodern violence zooms into the megalopian core zones which ring the planet. These 'ecologies of fear', to use Mike Davis's term, constitute precariously balanced systems of biotechnics, with rhythms easily knocked out of synch by the minutest accident or interruption to networks of communication and transportation. Axiomatic systems of capture reterritorialize on the most deterritorialized element, the most uncertain, unpredictable bit of information drives the control logic. The base circuit of programmed catastrophe emerges as, the "war machine finds its

¹³⁷ (Cyberwar, God & TV)

new object in the absolute peace of terror or deterrence. It is terrifying not as a function of a possible war that it promises us, as by blackmail, but on the contrary, of the real, very special kind of peace it promotes and has already installed. It no longer needs a qualified enemy but, in conformity with the requirement of an axiomatic, operates against the 'unspecified enemy,' domestic or foreign (an individual group, class, people, event, world."(ATP: 467) Assembled under the shadow of nuclear deterrence, programmed catastrophe stretches beyond the historical period of the Cold War.

This forms the infrastructure of the modalities of postmodern violence constantly perturbing the programme grids of *telematic* culture astutely described by J.G. Ballard as the *Atrocity Exhibition* hence converging with Virilio's depiction of television as a 'museum of accidents'. *Programmed catastrophe* is power as simulation working at its very limit, it is simultaneously the most sophisticated and far reaching way to mould the future, to ward off catastrophe through perpetual exposure to simulated and mediated disaster. *Programmed catastrophe* is the unintended consequences of a mode of power which here has been termed *turbulence simulation*. "the orbital, interstitial, nuclear, tissual network of control and security which invests us on all sides and produces us,

¹³⁸ P221-222, Ewald, 'Two Infinities of Risk' in (1993) Massumi (ed) *The Politics*

all of us as a silent majority.”(ISSM: 50) The attempt to shape the future brings rushing in, the *general accident* of reality, with its accompanying paranoiascape of pure terror. Postmodernity as a techno-cultural mutation changes interfaces of power and violence and their distributed emergence, velocity of dissipation, dampening or escalation. The carceral continuum, “a machine for making emptiness. It is a bit like the real danger the nuclear power stations pose; not lack of security, pollution, explosion but a system of maximum security that radiates around them, the protective zone of control and deterrence that extends, slowly but surely, over the territory- a technical, ecological, economic, geopolitical glaci. What does the nuclear matter? The station is a matrix in which an absolute model of security is elaborated, which will encompass the whole social field and which is fundamentally a model of deterrence (it is the same that controls us globally, under the sign of peaceful coexistence and of the simulation of atomic danger.”(SS: 61)

Umberto Eco maps the shift into a postmodern terrorism, a shift from attacks against the head of state, to the military-industrial elite and finally to this headless infrastructure in an attempt at *systems crashing, information overload, hacking.*

The use of terror has always been fundamental to the State and its guerrilla opponents in their respective protection rackets. Imminent to the cybernetic social machines of advanced capitalist states lies what they can only perceive as a programming malfunction, an accident, turbulence in the channelled flow. But the program has to break down to move; the accident is the glowing attractor emerging from outside, pattern recognised as chaos, the masses converge on the epicentre. The connection between terror and media machines was virtually always there as a technique of accumulation of revolutionary momentum.

Anarcho, bio, socio, ethno, mytho, narco and state. Different threads which weave the network of terror. Gears and engines of an interconnected machinery. The global war machine, wired, unpicks the locks of an increasingly precarious megamachinic capture complex, disengaging regulatory brakes and releasing darkside flows of incendiary intensity from the lock-in of nuclear proliferation. A molten planet, inhabited by pockets of turbulence emerging from the virtual fuse wires which hug the contours of population irrigation systems of control phase cybernetics.

It is not coincidental that Total Peace emerged in conjunction with global media. The planetary communications network born of the logistical requirements of several waves of military conflict since

the late nineteenth century makes high velocity pure war possible; the emergent transnational terror network does not primarily go through Moscow or Libya or Iran as in the Pentagon's paranoid projection, but through a 'fibrespace' which converts the heat of terrorist pyro-technics into the energy of networked electron swarms.

Sounding increasingly archaic in its ideological soundbiting, 1970s and 1980s terrorism which claimed to strike at the heart of the state or the military-industrial complex ignored the fact, recognised by Umberto Eco, that it was no longer "the enemy of the great systems, but their natural counterweight, accepted programmed (TIH: 116); interjecting into the segmentarity of scheduled television, "erroneous bits of information inserted here or there, making work hard for the computers that run the place."(TIH: 115) Failing to mutate to the bio-technical specificity of spectacular society, the Red Brigades in Italy were forced into a suicidal discharge of martial potential in an escalation which forced a state of emergency and reterritorialization of the smooth spaces of the autonomia movement. A black hole which marks the demise of Occidental revolutionary strategy on the model of modern industrial machines. As Virilio notes "At a time when the old Communist parties of southern Europe, in the middle of a nuclear deadlock, compromise themselves historically for the benefit of the political

State, the "Brigadists" reaffirm the permanence, in History, of the concept of Pure War, the independence of that great Western current of nihilist thought. This thought aims precisely, to disrupt the social and political field of nations by abusing the illegality of armed forces, the exercise of pure power."(PDEC: 42)

But if programmed catastrophe signals the onset of the cybernetic state of emergency then terrorism is no longer the preserve of opposition movements but lies imminent to the postmodern ecology of fear making it impossible to distinguish the violence on either side. For Baudrillard, "the same acts of violence, of pillage, the same undermining, the same suspension of the 'social order'" would ensue. Baudrillard goes as far as stating that terrorism is no longer most importantly a step of violence, but is everywhere the "normality of the social such that from one moment to the next it can be transfigured into an inverse absurd, uncontrollable reality."(ISSM: 57)

In the age of information warfare, terrorism is exposed as a system of communication. Channelled through television, mangling meaning and representation, terrorism assumes a hypereal glow forming with the masses, a circuit which inverts the modern categories of 'law and order'; instead of the rational channelling of violence, random lightning attack; instead of participation,

hyperconformity. With this implosion of the West into indeterminate systematics it is not surprising that legitimate violence and terror, offender and victim oscillate in novel reversibility. If the modern state opposed its monopoly of violence to terror, then as this economy gets distributed there becomes "no head of state in the world. . .who is not in virtuality a criminal."¹³⁹ Terrorist activity against C3I as an orbital system stretched out between satellites along telecommunication networks into the electromagnetic spectrum itself. In this new planetary smooth space, the war machine can emerge and operate at any point through a remote control of unprecedented 'accuracy', speed and lethality.

With the Gulf War *C3I synergizes*, fusing flight simulation modules into an electronic complex which, in Virilio's terms substitute virtuality for actuality in a terminal accident of the real - signs of the *general accident* as psycho-geographies warp into a world-wide 'ecology of fear'. In postmodernity, power fluidifies and decentralises, as it attempts to stratify the emergent oceanic expanse of virtual reality. There is nothing necessarily liberative about processes of self-organisation - just as there exists a guerrilla mode of rhizomatics, *rhizomania* inhabits smooth space in a *postmodern fascism* where the global war machine drives an

¹³⁹ p63 in Agamben, in Massumi (ed) (1993).

experimental futurist orientation of the secret services and the military technocracy. Whilst deferring atomic conflict, control programs fear into the microphysical fabric, reinforcing it through eternal catastrophe simulations. The megalopian accident is channelled by the security state dissipating its energy ambivalently; while it is immediately packaged into the spectacle, it leaks, it makes real catastrophe arrive, baiting the invisible violence of security into an escalating implosion, infecting the systemic logic of slow death with kamikaze suicide. A multiplicity of new bio-technical combinations, “. . .the very conditions that make the State world war machine possible, in other words, constant capital (resources and equipment) and human variable capital, continually recreate unexpected possibilities for counterattack, unforeseen initiatives determining revolutionary, popular, minority, mutant machines.”(ATP: 422)

So a cartography of postmodern violence points to the liquid instability of the world system as it mutates away from head to head mega-state conflicts towards the dominant mode of conflict as orbital counter-insurgency against virus attacks both digital and actual, renegade nuclear detonation and hyperurban biological warfare. March 20 1995 - Deep in the circuits of Tokyo's communications infrastructure, planetary terrorism crosses a threshold into ultraterrorism. Holy terror as Pure War. Aum Shinri

Kyo's sarin attack on the Tokyo subway and the streets of Matsumoto became the first attack by a relatively small group on a mass population using chemical warfare. As one commentator described it; "We've definitely crossed a threshold. This is the cutting edge of high-tech terrorism for the year 2000 and beyond. It's the nightmare scenario that people have quietly talked about for years coming true."¹⁴⁰ The dominant feature of postmodern violence lies in this network of terror which stretches between State megamachines with massive winding down arms economies and a darkside out of which emerge a whole array of non-state entities and collectivities of varying degrees of micro-fascism¹⁴¹. Pure terror is part of the same logic as turbulence simulation. Both attempt to accelerate the accident of the species. While turbulence simulation through programmed catastrophe attempts to simulate catastrophe in order to ward it off (thereby bringing the general accident ever closer by programming it into the micro-physic urban fabric) pure terror brings disaster directly, unleashing the virtual

¹⁴⁰ Bruce Hoffman of the Center for the Study of Terrorism and Political Violence at Saint Andrew University in Scotland quoted in D.W. Brackett, (1996) *Holy Terror: Armageddon in Tokyo*, NY: Weatherhill.

¹⁴¹ As Brackett describes it, "Prior to both sarin attacks, Aum's public activities included a strident doomsday philosophy; vitriolic anti-American rhetoric; extraordinary purchases of chemicals and sophisticated laboratory equipment from around the world; extensive connection with former Soviet weapons scientists, politicians, military figures; unusual interest in acquiring data and research on weapons of mass destruction; the acquisition of conventional weapons technology and the machinery needed for weapons production; the purchase of a civilian version of a military helicopter and several drone aircraft; the lease of a ranch in a remote location of Australia where it mined for uranium and conducted sarin tests on sheep; the arrest of a number of Aum members for burglaries of weapons-research centers in Japan; plus numerous other criminal complaints made to the Japanese police, including murder. . . despite this

terror imminent to the carceral continuum in its reterritorialization of the anti-city.

Despite the widespread depiction of Baudrillard as champion of postmodern nihilistic passivity, a strategic orientation seems to emerge occasionally from his perspective. Baudrillard harbours a minor interest in Oriental martial theory. In *the Ecstasy of Communication* for example, he writes of a "strategy of absence, of evasion, of metamorphosis. . .To divert, to set up decoys, which disperse evidence. . .to slightly displace appearances in order to hit the empty and strategic heart of things. . .never aim straight at your adversary or his weapon, never look at him, look to the side, to the empty point from where he rushes and hit there, at the empty center of the weapon."(EC: 68) Indeed Baudrillard's move beyond Foucault and Deleuze & Guattari could be thought in such fluid strategic terms; the interview between Baudrillard and Lotringer entitled *Forget Baudrillard* opens with a quote from Foucault; "As in judo, the best answer to an adversary manoeuvre is not to retreat, but to go along with it, turning it to one's own advantage, as a resting point for the next phase."(quoted in FF: 65)

disturbing list, Aum Shinri Kyo as a terrorist organization remained undetected - indeed largely unknown- for most of its active life."p55.

Converging with Eco's critique of revolutionary terrorism for not understanding cybernetics, Baudrillard holds in *Symbolic Exchange & Death* that the system will not be destroyed by a "direct, dialectical revolution of the economic or political infrastructure. Everything produced by contradiction, by the relation of forces, or by energy in general, will only feed back into the mechanism and give it impetus, following a circular distortion similar to a Moebius strip. We will never defeat it by following its own logic of energy, calculation, reason and revolution, history and power, or some finality or counter-finality."(36) Forewarning of the suicidal vector of terroristic escalations of discharge, he continues that the "worst violence at this level has no purchase, and will only backfire against itself. We will never defeat the system on the plane of the *real* : the worst error of all our revolutionary strategies. . . "(36)

At moments, Baudrillard seems to celebrate the insurgency of the symbolic into the sterile *white magic* of rationality and the security systems of the 'human'; the terrorist act "aims at threat white magic of social abstraction by the black magic of a still greater, more hazardous abstraction."(ISSM: 53) Information overloads; It is a "silence mesmerised by information; [terrorism] aims at that white magic of the social encircling us, that of information, of simulation, of deterrence, of anonymous and random control, in order to precipitate its death by accentuating it."(ISSM: 53)

In these moments, terrorism is situated on an 'accident continuum' unleashing the savage panic which he suggests perpetually threatens, through its sidestepping of representation, the carceral continuum's status as perfected control. For Baudrillard, this 'accident' continuum would consist of "[f]ires, wars, plague, revolutions, criminal marginality, catastrophes; the whole problematic of the anti-city, [and] has some archaic relation to its true mode of annihilation."(SS: 70-71)

Despite this, his nihilism concerning the cultural condition of postmodernity and its logic of simulation overrides his restrained enthusiasm for anything which forces the system to face death; in *Simulations* he questions despairingly whether "any given bombing in Italy the work of leftist extremists, or of extreme right-wing provocation, or staged by centrists to bring every terrorist extreme into disrepute and to shore up its own failing power, or again, is it a police-inspired scenario in order to appeal to public security? All this is equally true, and the search for proof, indeed the objectivity of the fact does not check this vertigo of interpretation. We are in a logic of simulation which has nothing to do with a logic of facts."¹⁴² For Baudrillard also, terrorism converges with the general accident of reality. In postmodernity, the only possibility for the real to

¹⁴² 31-32 in J. Baudrillard, (1983) *Simulations*, NY: Semiotexte.

reassert itself is through interruption or accident and the stakes of such accidents increase with every technological advance. There is an accident immanent to every technological moment.

Emanating from the model of deterrence, simulation is a model of "planned infallibility, of maximum security and deterrence" which radiates across social systems in a kind of fallout here termed *programmed catastrophe*. It is programmed in the sense that "nothing will be left to chance" thereby accelerating the control project of modernity "towards a limit people imagined would be explosive (revolution)". Catastrophe feeds in however because this striving to *shape the future* breeds an "inverse, irreversible, *implosive* process: a generalised deterrence of every chance, of every accident, of every transversality, of every finality, of every contradiction, rupture or complexity in a sociality illuminated by the norm and doomed to the transparency of detail radiated by data collecting mechanisms."¹⁴³ This implosion forces Baudrillard to move beyond the concept of the 'social'. Like Virilio, Baudrillard's conclusions about terrorism are closely tied, along with their interest in Palestinian high-jackings, to activities in Europe during the 1970s, particularly Italy and Germany. As he argues that terrorism and the state "are accomplices in a circular set-up." (SW: 121) Explaining this violent complicity, he contends that "events

¹⁴³ Ibid. 64.

are played out on a conscious level of adversity, of war, of irreconcilable, incompatible ideologies, but in reality what's happening underneath it all? Who would dream that the situation can become so totally terroristic that in fact it joins its other extreme? I don't see how all this can end. It is not objectively representable."(SW: 121) This critical threshold which Baudrillard perceives both in the deterrence of Total Peace and the stand-offs of terrorism is the moment at which the social implodes.¹⁴⁴

For Baudrillard, the circuit is not just between media and terrorist. It is not just that the logic of the media is violence feeding back into terrorist escalation. Perhaps more importantly, for Baudrillard, are the masses as driving force. "The masses are a void, a political void. They put a path our of the system. They act, not by adding something to the system, but by subtracting something from the system. They create a void, and this void coincides - or resonates - with the masses as a void."¹⁴⁵

¹⁴⁴ Here Baudrillard is heavily influenced by both Nietzsche and Canetti . Baudrillard's postmodernity seems to correspond to what Nietzsche describes in the Will to Power as the 'last form of nihilism', a "disbelief in any metaphysical world and forbids itself any belief in a *true* world. Having reached this standpoint, one grants the reality of becoming as the only reality." 13 in F. Nietzsche (1967) *The Will to Power*, New York: Vintage. Following Nietzsche's current, Canetti says that "It is as if, at a certain point, history was no longer real. Without noticing it all mankind suddenly left reality: everything happening since then was supposedly no longer true; but we supposedly didn't notice. Our task would be to find that point, and as long as we didn't have it, we would be forced to abide in our present destruction." 69 in E. Canetti (1978) *The Human Province*, Trans. by Joachim Neugroschel. New York: Seabury.

¹⁴⁵ 290 in E. Johnson(ed) 'Baudrillard Shrugs: A Seminar on Terrorism and the Media, with Sylvere Lotringer and Jean Baudrillard' in W. Stearns & W. Chaloupka (eds) (1992) *Jean Baudrillard: The Disappearance of Art & Politics*, London: Macmillan.

"Terrorism can have a visible, a spectacular form. It is still part of the dramatic, practicality in the historical realm. So it can be succeeded by a kind of negotiable terror. The term 'hostage', as I have used it, would then qualify not only the visible dramas of the taking of hostages, but rather the hyper-reality of everyday life which is situated well beyond negotiable terror. It's the same as for deterrence. It's not the actual terror of the orbiting bombs' power of destruction. Virilio says that very clearly. War having also become an impossible exchange, the hostage would only qualify a situation in which all exchange has become impossible."(SW:117)

4.2 Postmodern War: from the jungle to cyberspace

“The social and political fluidity of late capitalism has not been accomplished by a withering away of state violence. On the contrary, state violence has also been fluidified and intensified. The rapid deployment force is the model of late capitalist state violence, on all fronts: the ability to descend ‘out of nowhere’, anywhere, at a moment’s notice- the virtualization of state violence, its becoming immanent to every coordinate of the social field, as unbounded space of fear.”(IF: 29)

In his discussion of postmodernity, Frederic Jameson points to the emergence of a new war machine. Citing Vietnam as the first postmodern war, he notes how existing discursive techniques proved inadequate for mapping the psychogeographical perturbations of mega-imperial hi-tec jungle warfare. “The first terrible postmodernist war cannot be told in any of the traditional paradigms of the war novel or movie- indeed that breakdown of all previous narrative paradigms is, along with the breakdown of any shared language through which veteran might convey such experience. . .” Pointing to Michael Herr’s *Dispatches* as capturing a new mode of writing in the “eclectic way in which its language impersonally fuses a whole range of contemporary collective idiolects, most notably rock language and black language. . .[in order to capture the turbulence of fluidifying structures perpetually] *in motion*”¹⁴⁶

¹⁴⁶ F. Jameson, *The Cultural Logic of Late Capitalism*.

Herr's *Dispatches* forms part of a cultural complex mapping the shellshock of postmodernity as Occidental endocolonization, a return to the jungle, either tropical or urban. The complex runs parallel to the cartography composed here and consists of films such as *Apocalypse Now* based on Herr's text (both of which owe much to Conrad's *Heart of Darkness*), the sci-fi cyberpunk of the *Predator* movies and the apocalyptic hyperrealism of contemporary hip-hop and jungle/drum'n'bass music. Each relays a narrative of jungle tactics imported into the megacity, torn apart by a redistribution of the hardware of violence, narcotics, and mutant information technology. The city like the jungle, a zone of imperceptibility, camouflage, surprise and devastation churned up by the planetary vortex of the war machine, goallessly swirling bodies around the system engineering them each as a "moving-target-survivor subscriber, a true child of the war , because except for the rare times when you were pinned or stranded the system was geared to keep you mobile, if that was what you thought you wanted. As a technique for staying alive it seemed to make as much sense as anything, given naturally that you were there to begin with and wanted to see it close; it started out sound and straight but it formed a cone as it progressed, because the more you moved the more you saw, the more you saw the more besides death and mutilation you risked, and the more you risked of that the more you would have to let go of one day as a 'survivor'. Some

of us moved around the war like crazy people until we couldn't see which way the run was even taking us any more, only the war all over its surface with occasional, unexpected penetration. As long as we could have choppers like taxis it took real exhaustion or depression near shock or a dozen pipes of opium to keep us even apparently quiet, we'd still be running around inside our skins like something was after us, ha ha, La Vida Loca. In the months after I got back the hundreds of helicopters I'd flown in began to draw together until they'd formed a collective meta-chopper, and in my mind it was the sexiest thing going; saver destroyer, provider-waster, right hand-left hand, nimble, fluent, canny and human; hot steel, grease, jungle-saturated canvas webbing, sweat cooling and warming up again, cassette rock and roll in one ear and door-gun fire in the other, fuel, heat, vitality and death, death itself, hardly and intruder."¹⁴⁷

Following World War 2, a swarm of technological innovations emerged constituting the components of the cybernetic war machine which proceeded to surround the planet; satellites, jet aircraft, helicopters, electronics and automation applied to fire control, communications, countermeasures and logistics, simulation, meteorological radar and self-guided weapons. With the addition of each new component, the informational tasks became

¹⁴⁷ M. Herr, *Dispatches*, 15-16.

more and more complex. Van Creveld estimates that perhaps 20 times the amount of information that was required to coordinate the US military in 1945 was needed in 1963(1985). Hand in hand with this increase in complexity came a specialisation of bodies and their centralised co-ordination; machines and their humans webbed up in the information skin of the planet forced to resonate from the Pentagon. In this way, Vietnam served as a laboratory whose results were not properly operationalised until Desert Storm in 1991 when digital interfaces smoothed out the consistency of the system.¹⁴⁸

4.2.1 Flight Simulation: from chopper war to sim-copter

"A helicopter clattered overhead, a cameraman crouched in the bubble cockpit. It circled the overturned truck, then pulled away and hovered above the three wrecked cars on the verge. Zooms for some new Jacopetti, the elegant declensions of serialized violence. Travers stated the engine and turned across the central reservation. As he drove off he heard the helicopter climb away from the accident site. It

¹⁴⁸ A war machine undergoes information stratification through regulations, procedures, order and reports sucked up to and emanating from a central processing unit - in postmodernity it is known as C3I. The US displayed the characteristic signs of a global power on a down wave, aggression and impatience. The information structure was stretched horizontally in relation to specialisation but also vertically in terms of chains of command,. Such a stretching was only made possible by electronic control-command, systems analysis developed at RAND, cost benefit system meshing and integration of data processing. The 1950s also saw a preoccupation with fail proof positive control system for the accidental outbreak of nuclear war. Together, they increased decision threshold of the system as frictional information finally drained up to senior officials. Remote control decreased speed de-forming the rhizomatic network of the jungle where the micro-deployments were locally co-ordinated through multi-channel radio. This appears anomalous when the surplus value of the helicopter, radio and electronic communication are taken into account, i.e. their structure flattening potential. But it took the next 30 years for such friction tin the war machine to be tuned out as insurgent intelligence as Oriental martial technique swept across the military, the economy and the populations at large - downsizing.

soared over the motorway, the shadow of its blades scrambling across the concrete like the legs of an ungainly insect.”(Ballard 1979 87-88)

One of the key signs of this jungle/cyberspace complex or interaction can be seen in the relation to flexible deployments in both terrains, through the vehicle of the helicopter with its peculiar relation to space¹⁴⁹, emergency, simulation and clusters and clearings of tropical rainforest and urban cores. An imminent vortical machine of emergency magnetises the helicopter to turbulence in the anthropomorphic skin of the planet- no other vehicle could match their movement around tangled jungle terrains. The helicopter is swept away by the same wave which pulsed under the dark shadow of nuclear annihilation, forcing insurgency and counter-insurgency to become the predominant forms of conflict. The war machine lies dimensionally exterior to localized conflict so the interaction between conventional and jungle forces constitute learning experiences and simulation games for electronic war intelligence.

¹⁴⁹ In contrast to the linear projectile trajectory of the airplane the manoeuvrability of the helicopter gives it special status when appended to the sockets of megamachinic capture. Its potential for smooth terrain hugging flight immediately sucked it down into cyclonic planetary spaces, as the vehicle most conducive to tracking emergency through the parallel channels of state space. Following Deleuze & Guattari, Da Landa (1991) notes that the war machine emerges from singular physico-chemical traits in the flow of matter-energy, the machinic phylum which we discussed in Chapter 2. Beyond these thresholds order emerges out of chaos. When Leonardo Da Vinci noted the elemental fluidity of both water and air (2-3 in C. Gablehouse (1970) *Helicopters & Autogiros*, London: Frederick Muller Ltd.)he affirmed the affinity of fluids to smooth space and hence anticipated a future plateau of the war machine, at the time only occupied by projective explosives.

The helicopter occupied an ambivalent role in this new electronic military environment, simultaneously allowing information extraction and body/weaponry insertion into previously inaccessible zones while paralysing action due to information overload, time lag and 'atroci-tv' news reels telescoped back to the American population often quicker than official channels could inform command. Van Creveld describes one situation of redundancy in a kind of aerial Panopticon. "A hapless company commander engaged in a firefight on the ground was subjected to direct observation by the battalion commander circling above who was in turn supervised by the brigade commander circling a thousand or so feet higher, who in his turn was monitored by the division commander in the next highest chopper, who might even be so lucky as to have his own performance watched by the Field Force commander."¹⁵⁰ Now, the helicopter is not just part of a system of panoptic surveillance but functions as a component of a wider headless system operating at the level of code, strung out between remote sensing satellites, geographical information systems, and the numerical climatics of the statistical population.

The point is illustrated well by looking at computer games. Monsters, fires, air crashes, earthquakes, riots and tornadoes. In

the urban arcology of Sim City 2000, various mutually exciting disasters can be deployed on the digital slabscape, injecting panic virus through the Sim population and inducing crowd dynamics flocking like ghouls around the hot zone of emergency. The Twister cuts a diagonal course through the concrete and mirrored glass conduits and damms of megalopian downtown irrigation; a helicopter hovers over the rim of the cyclone, peering down the slopes of spiralling air particles, brick twisted glass and steel into the calm eye of the storm. The helicopter sends out a spacious epileptic rhythm which repeats through the ocean of noise, the breakbeat of mechanospheric overdrive..

Simulation of flight involves hacking into the code of human spatial equilibrium mechanisms¹⁵¹, and then producing environments to

¹⁵⁰ 255 in M. van Creveld (1985) *Command In War*, Mass: Harvard University Press.

¹⁵¹

In the helicopter, moving wings create a "vortex system (air moving to a circular pattern) which deflects the air downward. This in turn produces a reaction on the wing in the opposite direction, the lift force that supports the aircraft."¹⁵¹ Due to the difficulties of flying in open space dimensional space, the cybernetic man-machine assemblages were designed to lock onto the calm at the eye of the storm; "all the part want to go their own way." Hence, bodily immersion in the cockpit controls functioned in the manner of a flying gyroscope, "a device containing a disc rotating on an axis that can turn freely in any direction so that the disc resists the action of an applied couple and tends to maintain the same orientation in space irrespective of ht movement of the surrounding structure."¹⁵¹ The abstract diagram of the helicopter places the body at the apex of intersectional rotational planes, the cockpit stands poised on a torque diagonal; "The force that rotates the main rotor system clockwise as seen from the cockpit also tries to rotate the fuselage under it in the opposite direction. . .The way it is controlled is with the anti-torque rotor, the tail rotor located at the end of the tail boom. When it is spinning, it pushes the tail sideways against the torque. The amount of push, and therefore the direction the nose points, is controlled by pushing the foot pedals." 24 in Mason (1983) *Chickenhawk*, London: Corgi

generate a 'stationary voyage' through the virtual actuality of 'frequency scapes' - sonic vibration simulators, gravitational pull and vision all co-ordinated by a chip to bring the body up to speed with interfaces into the virtual; training bodily components of the war machine while simultaneously smearing the virtual into the actual; catalysing a military-industrial-entertainment complex, operating at the microphysical level as the Central Nervous System melts into the console. The convergence between the machinic phylum and the human signals a co-evolution between weapons technology and biology. The cyborgian warrior forms one component of a distributed information system, which can replay and practice coded scenarios in endless simulation.

While for Virilio television serves as the 'museum of accidents' the simulator is much closer to cyberspace, not just housing a series of real time accidents but constituting the accident of reality itself, perhaps the most basic definition of cyberspace. Tracing their emergence from the US Air Force flight simulators which were initially used "to save gas on real flights by training pilots on the ground. Thus there is a cyberspace vision: one doesn't fly in real space, one creates a poor cyberspace, with headphones, etc. . .it is a different logic. In a way, the simulator is closer to cyberspace than television. It creates a different world. So, of course, the simulator quickly became a simulator of accidents, but not only

that: it started simulating actual flight hours, and these hours became equivalent, and this was cyberspace, not the accident but something else, or rather the accident of reality."¹⁵²

For Virilio the dimension of simulation is closely tied to the learning process, so that for example, "when one learns how to drive a car or a van, once in the van, one feels completely lost. But then, once you have learnt how to drive, the whole van is in your body. It is integrated into your body. Another example: a man who pilots a Jumbo Jet will ultimately feel that the Being is entering his body."(4) Virilio's discussions of the relation of the metabolism to the machine owes much to Marinetti's futurist vision of speed as we shall see in Sector 5. Virilio critiques this notion of speed as intrinsically fascist but sees an apocalyptic abyss into which the earth plummets- the substitution of the virtual for the actual will take us, he argues, towards the "disintegration of the world. Real time 'live' technologies, cyberreality, will permit the incorporation of the world within oneself. One will be able to read the entire world, just like during the Gulf War. And I will have become the world. The body of the world and my body will be one. Once again, this is a divine vision; and this is what the military are looking for. Earth is already being integrated into the Pentagon, and the man in the Pentagon is already piloting the world war - the Gulf War - as if

¹⁵² 1 in Virilio, *Cyberwar, God & TV*. . .

he were a captain whose huge boat would have become his own body. Thus the body simulates the relationship to the world.”¹⁵³

4.2.2 Desert Screen: the global war machine in effect

“To command, it is necessary to be in control. And to be in control, it is necessary to be capable of communicating. Without intelligence, any operation is destined to failure.”(Colin Powell, Chief of General Staff of US army, DS: 170)

More than most critical theorists on the planet, the theories of both Jean Baudrillard & Paul Virilio stood poised to receive the singular event of the Gulf War¹⁵⁴, and therefore contribute to a cartography of the unfolding of postmodern violence. The global war machine, for the eyes of millions is finally seen in its full orbital and electromagnetic extremes. For both, it served as the clearest evidence of the reversal of Clausewitz’s formula with technological mean driving politics, the onset of the *turbulence simulation/programmed catastrophe* topological continuum.

4.2.3.1 Soft War

In his typical controversial style, Jean Baudrillard’s perspective on the Gulf War was delivered in 3 articles before, during and after the war; entitled simply ‘The Gulf War will not take place’, ‘The Gulf War: is it really taking place?’ and ‘The Gulf War did not take

¹⁵³ 4 in Virilio, *Cyberwar, God & TV*. . .

¹⁵⁴

place'. Each one twists a blade in the flesh of those ardent anti-postmodernists such as Christopher Norris, amusingly inciting them out of their weighty burden with the gravity of reality.¹⁵⁵ More interestingly however than the modernist/postmodernist debate¹⁵⁶ is Baudrillard's dialogue with Virilio, between the soft war of hyperreality to the hyperspeed of pure war. For example, in one telling interview, Baudrillard tells how he was invited to cover the war. In his characteristic manner, he opted for the CNN coverage; "I live in the virtual. Send me into the real, and I don't know what to do?"(SW: 188) Describing him as more of an 'operational tactician' than himself, Baudrillard suggested that Virilio would have been more suited to the task. As Baudrillard notes, he shares with Virilio an analysis of the Total Peace of deterrence, the difference being Baudrillard's obsession with softwar(e) and Virilio's obsession with hardware and geo-strategy.

Against Norris' facile reading of Baudrillard, we can see clearly that Baudrillard denial of the 'reality' of the Gulf War is not some kind of

¹⁵⁵ William Merrin's essay on Norris's criticisms of Baudrillard's Gulf War writings can almost be completely be agreed with when he notes that "Norris's claims in *Uncritical Theory* concerning Baudrillard should never have been given credence in the first place. The question of where or not Baudrillard denied the existence of the Gulf War should never have been asked. That it was is indicative of the standard of criticism his work has all too often received, and of a perhaps intentional policy by some to discredit his status as a thinker. . ."445.

¹⁵⁶ *Machinic postmodernism* as it has been deployed here takes as a starting point the redundancy of this debate in light of material transitions of cybernetic society. As will be seen towards the end of Chapter 5, the more profitable theoretical tension lies *not between modernity or postmodernity* but rather *in postmodernity* between nihilism and an what shall be called *an ethics of speed*.

insidious revisionism but rather part of his broader theory of the precession of simulacra. If the Gulf War for Baudrillard lacked 'reality' it is because it constituted, for him, a good example of a 'synthetic object'. As he notes, this "does not mean that damage and destruction didn't take place. There is violence, but it is not real, it is virtual. There is also violence in the virtual but it's like a simulation model, a parachuted war that does not take place. It is already programmed and takes place as it was programmed. But this one didn't even go as planned because in the end it went completely off the rails. Therefore, there aren't even any consequences. Nothing has been solved. On the contrary, the situation is perhaps even worse than before. So it was a *simulacre* of a war, the only consequence of which is a *simulacre* of negotiation."(SW: 207) War in the age of programmed catastrophe relegates politics to depthless reiterated games. As his articles on the war reiterate, politically the war did not happen. Typically despairing, Baudrillard complained of the "impotence in the face of the total political debility on both sides. There remain only that sort of policy one calls deterrence, that is to say a consensual system of mutual terror. And you can be sure I've got my feeling about that! But above all, what is really happening on the ground there, in Iraq, it's so vile. It's enough to drive you either into depression or into a rage! It arouses feelings you can neither describe nor transpose. What can a writer say about this heap of cowardice and

stupidity?"(SW:116) Baudrillard seems to have deployed his writing machines to process his ambient misery. Describing himself as a 'melancholic' rather 'depressive' and depicting himself as a kind of postmodern survivalist, Baudrillard adopts a transformative writing strategy.¹⁵⁷

As with his discussion of terrorism, Baudrillard wanted to emphasise the implosion of the real rather than Virilio's discourse on the supplantation of geo-strategy by chrono-strategy. Baudrillard, instead of talking of the 'revolution' of real time as Virilio does, suggests that the dynamic is "an involution in real time; of an involution of the event in the instantaneity of everything at once, and of its vanishing in information itself. If we take note of the speed of light and temporal short-circuit of pure war (the nanosecond), we see that this involution precipitates us precisely into the virtuality of war and not into its reality, it precipitates us into the absence of war. Must we denounce the speed of light?"(GW: 48) Baudrillard, betting on 'deterrence and the indefinite virtuality of war', here opposes his perspective on the

¹⁵⁷ As he puts it, "[f]aced by an event like that war, which I see as a non-event, a product of deflation, you either share that depression, the depression of military violence, or you transform the non-war by writing. And that is how it happened with me during those six weeks. If the war doesn't do to extremes, then writing must be allowed to, one way or another. That is its role. It's as description of a society in a state of undifferentiation, of neutralisation, implosion, entropy, etc. But it is obviously a transfiguration brought about by writing. It is writing's 'fatal strategy' to go to extremes. And that strategy is a happy one, vital. That is my vitality, and that is why I will always survive."(SW: 180)

war to that of Virilio whose narrative of acceleration of pushed towards a vision of 'apocalyptic escalation'.

However for both, as Baudrillard himself admits, postmodern war is non-Euclidean and actually contains the two apparently contradictory tendencies simultaneously. Pure war is a vicious circle. The Gulf War illustrates more than anything the complementarity of escalation and deterrence. The 'non-Euclidean' space in which post-modern war resides for Baudrillard & Virilio constitutes a topological space of movement in which "the forms we consider the most contradictory can exist at the same time."(SW: 186)

In the essay, *'The Gulf War: is it really taking place'* Baudrillard notes how the "war's programmed escalation is relentless and its non-occurrence no less inevitable: the war proceeds at once towards the two extremes of intensification and deterrence. The war and the non-war take place at the same time, with the same period of deployment and suspense and the same possibilities of the de-escalation or maximal increase. . . .What is most extraordinary is that the two hypotheses, the apocalypse of real time and pure war along with the triumph of the virtual over the real, are realized at the same time, in the same space-time, each in implacable pursuit of the other. It is a sign that the space of the

event has become a hyperspace with multiple refractivity, and that the space of war has become definitely non-Euclidean. And that there will undoubtedly be no resolution of this situation: we will remain in the undecidability of war, which is the undecidability created by the unleashing of the two opposed principles. Soft war and pure war go boating.”(GW: 49-50)

They converge again in their perception of capitalism as a catastrophic non-linear system. *Programmed catastrophe*, for Baudrillard, is defined as the pure terror of an involutory, implosive actuality, “Past a certain threshold of inertia, forms start snowballing, stampeding and terror is unleashed in an empty form. . .When effects go faster than causes, they devour them. I could easily see the ‘speed-up’ analysed by Virilio from this angle, as an attempt to accelerate faster than linearity can. . .”(SW: 118) In places Baudrillard merely paraphrases in his own terms Virilio’s calculation of Pure war, morphing it into the argument of *Symbolic Exchange & Death* whereby the greatest threat to global capitalism is the perfection of its system of control; in this way Baudrillard describes Virilio’s tactics as extrapolating “the military to a kind of extreme absolute of power, which can only ultimately cause its own downfall, [to] place it before the judgement of God and absorb it into the society it destroys. Virilio carries out this calculation with such an identification or obsession that I can only credit him at

times with a powerful sense of irony; the system devours its own principle of reality, inflates its own empty forms until it reaches an absolute and its own ironic destiny of reversal.”(SW: 116)

4.2.3.2 Pure War

In *Desert Screen*, Virilio’s text on the Gulf War, he tracks what Deleuze & Guattari would term the trajectories of the war machine through spatio-temporal modalities: from land, the ocean and airspace to cyberspace. Postmodern war consolidates in 1991 when the “[a]rms of communications prevail for the first time in the history of combat over the traditional supremacy of arms of destruction; the ‘offensive’ and ‘defensive’ themselves lose all value to the advantage of manoeuvres of global interdiction. . .”(170) forcing a tighter convergence of the arm with the eye which Virilio points to in his text *War & Cinema* - “first look first kill.”(169) The uniqueness of the Gulf War comes mostly therefore from the technological components of the war machine deployed but the very process of de-realization of the war started in 1945 with the swarm of media innovations which underwent global proliferation with the Marshall plan.¹⁵⁸

¹⁵⁸ Discussing the origins of cyberwar, Virilio notes how most “video-technologies and technologies of simulation have been used for war. For example, video was created after the Second World War in order to radio-control planes and aircraft carries. Thus video came with the war. It took twenty years before it became a means of expression for artists. Similarly, television was first conceived to be used as some kind of telescope, not for broadcasting. Originally, Sworin, the inventor of television, wanted to settle camera on rockets so that it would be possible to watch the sky.”(cyberwar, God & TV 2)

Virilio points out that when contrasted to the Second World War¹⁵⁹, the Gulf War was extremely local when considered in terms of the battlefield. However, more significantly, it was global in terms of the logistics of perception due to satellite targeting and remote command. "I am thinking of Patriot anti-missiles which were commanded from the Pentagon and from a satellite positioned high above the Gulf countries. On the one side, it was a local war, of little interest, without many deaths, without many consequences. But by contrast on the other side, it was a unique field of perception. For the first time, as opposed to the Vietnam War, it was a war rendered live, world-wide with, of course the special effects, all the information processing organized by the Pentagon and the censorship by the major states. In fact, it is a war that took place in the artifice of television, much more than in the reality of the field of battle, in the sense that real time prevailed over real space."(Der Derian interview 18)

Postmodern war signals the prevalence of the 'fourth front' in cyberspace over those in airspace, sea space and land. Virilio terms it the 'fourth dimension' of war, "a purely temporal dimension, that

¹⁵⁹ "The Gulf war was the first 'live' war. World War Two was a world in space. It spread from Europe to Japan, to the Soviet Union etc. World War Two was quite different from World War one which was geographically limited to Europe. But in the case of the Gulf War, we are dealing with a war which is extremely local in space, but global in time, since it is the first 'live' war." (3 Cyberwar, God & TV)

of the real time of ubiquity or instantaneity. A dimension less physical than microphysical itself typifies, or nearly so, the fourth front of the supremacy of the arms of communication.”(174)

Generally In his own commentaries on the Gulf War, Virilio emphasises his divergences from Baudrillard, criticising his articles on the Gulf War as ‘negational’. Virilio argues contra Baudrillard that even though the war “may not have occurred in the actual global space. . . it did occur in global time. And this thanks to CNN and the Pentagon. This is a new form of war, and all the future wars, all future accidents will be live wars and live accidents”(3 *Cyberwar, God & TV*) on *television, the media of crisis, the museum of accidents*.

In an interview with James Der Derian, Virilio points out that the novelty of the war was its degree of miniaturisation fusing the molecular with the planetary. For Virilio the war constituted a ‘scaled-down world war’, simultaneously ‘miniaturising the world,’(167). Virilio follows this movement to extremes, examining how the increase in speed of weaponry delivered and the digital infrastructure which made this possible forces war into the electromagnetic spectrum of cyberwar. From geo-physics to microphysics. The global war machine functions as a planetary vortex, fusing global and local scales into a single, spiralling,

orbital assemblage. As Virilio describes it "The war on the ground is tied to the tactical control of the *real space* of the battle, while the terminals of strategic control are dedicated to the management of the *real time* of exchanges." (173) Satellites fuse together the local with the global, casting a digital cartography across the surface of the earth producing the *real-time global vision* of turbulence simulation.

4.2.3.3 Stealth

Correlating to the technologies deployed, the Gulf War stood, for Virilio, as "the first stealth war of history" (DS:167) consolidating Sun Tzu's emphasis on 'deception' and 'detection' as the critical issue in postmodern war; "with the unceasingly augmented precision of intelligent munitions. . . *that which is seen is already lost.*" (DS:167) This triumph of the virtual over the actual is seen through what Virilio terms the 'necessities of icodynamics', of maintaining a 'low radar signature', of a "low probability of detection during approach". (DS:168) With the stealth bombers a conflict arises between movement in virtuality and actuality; "*The image in real time* of the supersonic aircraft prevails from a distance over the form of least aerodynamic resistance; in other words, over the real space of the design of its cockpit and airfoil." (DS:168)

To an unprecedented degree, virtuality feeds into the actual confusing the "immediate and remote presentations of the flying object. . . The radar induces the geometry of the weapon, of the aircraft, giving it its very form, its electromagnetic signature on a 'terminal' determining the profile, the mass and even the very nature of the absorbent coating of the war machine. . .'(DS:168)

Virilio tracks the importance of information warfare tactics such as jamming in the lead up to the war. He describes how during the preliminary grey/fuzzy period of the war, entitled Desert Shield allied global war machine lay coiled, poised waiting for the UN checkpoints and locks and damms to give way, enabling the massive discharge which was entitled Desert Storm, the foundations were laid "assuring orbital control of the Iraqi territory by approximately 20 American satellites allocated to the allied forces."(DS: 171)¹⁶⁰

¹⁶⁰ "the United State will bring into play the whole of their satellite panoply, from the weaponry of optical and radar reconnaissance, to telecommunication satellites (TDRS) including their electronic listening satellites (FERRET) which intercepted, throughout these many months, all Iraqi radio exchanges. The electronic intelligence (ELINT) establishing the *charting of the frequencies and wavelengths employed by the adversary*. These operations, which began as early as the summer of 1990 and were duly completed by the high altitude aerial reconnaissance by U2's of the Iraqi-Kuwaiti territory, led inevitably, in January 1991 to the systematic jamming of the communications of the Iraqi military forces.

Consequently, this vast data collection would lead, once the UN ultimatum expired to the jamming of the electromagnetic environment and the anti-aircraft Defense system of Iraq. This jamming, unique of its kind by virtue of its amplitude, affected the whole range of frequencies, from the HF to UHF (ultra high frequency) and even to Radio Baghdad which, according to some listeners, became inaudible. . ."(171)

The “massive jamming barrage” of Desert Shield essentially aimed to take out Saddam Hussein’s communications infrastructure. Stealth facilitates the optimal strategic fluidity, imperceptibility and flexibility. In the era of the overexposure of planetary satellite surveillance stealth war becomes the priority of electronic martial arts.

4.3 Megalopian turbulence: the 'Internal South' and the Ecology of Fear

"The more the world-wide axiomatic installs high industry and the highly industrialised agriculture at the periphery, provisionally reserving for the centre so-called post-industrial activities (automation, electronics, information technologies, the conquest of space, overarmourment etc.), the more it installs peripheral zones of underdevelopment inside the center. Internal Third Worlds, internal Souths."(ATP: 469)

4.3.1 Welcome to the Jungle: hyperurban neo-medievalism

"Crime 'war', drug 'war', 'battle' for the family. . .wherever there is a perceived danger, there is deterrence, whenever there is deterrence, there are immanent boundaries, and wherever there are imminent boundaries there is organised violence. For having boundaries that are actualised by being crossed is a very precarious way to run a world."(IF: 29)

"Metrophage tunes you into the end of the world. Call it Los Angeles. Government is rotted to its core with narco-capital and collapsing messily. Its recession leaves an urban warscape of communication arteries, fortification, and free-fire zones, policed by a combination of high intensity LAPD airmobile forces and borderline-Nazi private security organizations. Along the social fracture-lines multimedia gigabuck tangle sadomasochistically with tracts of dynamic underdevelopment where viral neoleprosy spreading amongst ambient tectonic-tension static. Drifts of densely semiotized quasi-intelligent garbage twitch and stink in fucked-weather tropical heat. Throughout the derelict warrens at the heart of darkness feral youth cultures splice neo-rituals with innovated weapons, dangerous drugs, and scavenged infotech. As their skins migrate to machine interfacing they become mottled and reptilian. They kill each other for artificial body part, explore the outer reaches of meaningless sex, tinker with their DZA, and listen to LOUD electro-sonic mayhem untouched by human feeling ."¹⁶¹

¹⁶¹ 19 N. Land, *Meltdown*, abstract culture, swarm 1, issue 1.

The internal south designates an urbanism of emergency, planning on the edge of catastrophe. It is the postmodern city in its various monstrous mutations with its cyberspatial climatics changing the weather on the street. As was discussed in Sector 1, Virilio's complaint about Foucault concerns whether the postmodern city can best be understood in terms of the confinement of the disciplinary mode or the circulation of control phase modulation. Through concepts such as *the carceral continuum*, *turbulence simulation* and *especially programmed catastrophe*, an attempt has been made to show the coexistence of both modes of power, power of enclosure and of transverse flow. Programmed catastrophe emphasises those urban elements far from equilibrium and digitalizes them, runs them through simulation models and feeds information back into the turbulent milieu, simultaneously dampening irregularity while shunting the eddies and vortexes up one level.

In this section the Critical Art Ensemble's (CAE) point mentioned earlier in this Sector will be expanded upon in a discussion of programmed catastrophe in relation to the singularity of the LA riots of 1992. The CAE suggested that Deleuze & Guattari fail to elaborate the shift from *street nomos* to *digital turbulence*. This argument will be developed to show that with the control modes we have been discussing, i.e. *programmed catastrophe* and *turbulence*

simulation that street turbulence in the 1990s suffers perhaps from a fatal *overexposure* in light of global television and planetary digital cartographies of danger which depict the anthropomorphic flows of the planet as an abstract weather system.

"Hyper-urban neo-medievalism is high rise meltdown."¹⁶²

The urban jungle of the postmodern megalopolis blurs with cinematic imagery of all those dystopian sci-fi movies with their neo-medieval paranoia-scape of robber-barons, pirate corporations, conspiracies and covert operations; as urban theorist Mike Davis describes, the "images of carceral inner cities (Escape from New York, Running Man), high-tech police death squads (Blade Runner), sentient buildings (Die Hard), urban Bantustans (They Live), Vietnam-like street wars (Colors). . .only extrapolate from existing trends."¹⁶³ It is the city-as-warzone, of snipers, man-traps, ambushes and drive-bys of hip-hop and jungle music. Urban militarization begins to saturate street level- grills, bars, bullet-proof acrylic turnstiles all driven by the risk assessment imperatives of insurance companies attempting to avoid big riot payouts.

"Turbulence in the Burgess model of the megalopian military-industrial-entertainment complex."¹⁶⁴

¹⁶² 15 in S. Goodman, (1998) *Darkcore*, abstract culture, swarm 3, issue 13.

¹⁶³ P222, Mike Davis, (1990) *City of Quartz*.

¹⁶⁴ 15 in S. Goodman (1998) *Darkcore*, abstract culture, swarm 3, issue 13.

This *hyper-urban medievalism* is detailed by the Italian geographer Giuseppe Sacco; "A series of minorities rejecting integration, form clans, and each clan picks a neighbourhood that becomes its own center, often inaccessible. . .The clan spirit dominates also the well-to-do classes who, pursuing the myth of nature, withdraw from the city to the garden suburbs with their own shopping malls, bringing other types of microsocieties into existence."¹⁶⁵ This meltdown of social integration, this slow motion riot, is what Sacco termed the Vietnamization of territories. Perpetual civil war in the urban jungle, clashing opposing minorities and guerrilla warfare. Endo-colonisation along shifting internal jungle frontiers. The destruction of the modern city is totally consistent with military's need to maintain a clear field of operations, making over the earth in a form which denies cover to any resistance.

Mike Davis' futurological cartographies of Los Angeles map the emergent scenarios for the planet's urban virtual futures. Like Jameson, postmodern geographer Ed Soja and late modernist geographer David Harvey, LA is postmodern urban meltdown scenario extraordinaire; in Davis' words, his analysis is a kind of 'Marxism for cyberpunks'¹⁶⁶ Taking Burgess' classic urban concentric model generated in the Chicago School of Sociology,

¹⁶⁵ This is Eco's (1987: 76) summary of Italian Geographer Giuseppe Sacco.

Davis examines the postmodern city in terms of an 'ecology of fear.'¹⁶⁷

In his careful essay on LA and the Ridley Scott film *Blade Runner*¹⁶⁸, Davis is extremely exact in avoiding the modernist double-bind of historical projection of utopia or dystopia following the cyberpunk diagonal of William Gibson in *Neuromancer*, to learn how "realist, extrapolative science fiction can operate as prefigurative social theory, as well as an anticipatory opposition politics to the cyber-fascism lurking over the next horizon."⁽³⁾; "Los Angeles in 2019 will be the core of a metrogalaxy of 22-24 million people in Southern and Baja Californias. Together with Tokyo, Sao Paulo, Mexico City and Shanghai, it will comprise a new evolutionary form: mega-cities of 20-30 million inhabitants. It is important to emphasise that we are not merely talking about larger specimens of an old familiar type, but an absolutely original, and unexpected phyla of social life."¹⁶⁹

¹⁶⁶ *ibid.* 3.

¹⁶⁷ In this sense, Davis' essay is complemented by Massumi's Introduction to the Politics of Everyday Fear as cartographies of the psychogeography of pure terror, the ambient paranoiascape which accompany the turbulence simulation of cybernetic control societies.

¹⁶⁸ Mike Davis, (1993) *Beyond Blade Runner: Urban Control & the Ecology of Fear*, www.mediamatic.nl/Magazine/8#2/Davis-Urban.html.

¹⁶⁹ *ibid.* 6. Davis compares Los Angeles with Tokyo, with the former being a predominantly suburban form and the latter a high urban - the fact forces a strange convergence between LA and peripheral urban sprawls and hence explains why one may refer to megalopian configuration as 'internal souths' or 'internal Third Worlds'.

The human species in these new techno-ecological assemblages, mediated by windows onto the abstract machinic phylum of deterritorialized panic culture, by television screens hot-linking transcontinentally into the accidental cores in real time. But TV, or what Virilio terms the museum of accidents, is only the shallow end. As Mike Davis comments, the key development concerns the digital cartographies of postmodern violence which we have described here as *turbulence simulation*; "I've been going to meeting about Geographical Information Systems or GIS. Now geographers and urban planners, as well as traffic engineers and developers are enthralled by the imminent prospect of basing the management of complex urban systems- traffic flows, zoning, and so on- on LANDSAT satellites linked to GIS software. Since the image resolution capabilities of commercial satellites are now approaching the threshold of distinguishing individual automobiles, and perhaps even people and their pets, it will be possible to monitor the movements of entire populations. As one GIS expert at UCLA pointed out to me, this will quickly revolutionise the policing of inner-city areas. . .We shall soon see police departments with the technology to put the equivalent of an electronic bracelet on entire social groups."¹⁷⁰

¹⁷⁰ p149 in Davis (1993), 'Uprising & Repression in LA', in Gooding-Williams (ed).

4.3.2 Programmed Catastrophe: thresholds to volatility, turbulence simulation and population modulation

Television monitoring of global emergency, GIS digital cartographies of danger, technological accidents showing exponential potential for proliferation, urban biowarfare, militarized neo-tribal racist pack assemblages, systems hacking and jamming. This is the infrastructure of *programmed catastrophe*. An attempt to control this escalation itself, every perturbation to the Human Security System facing a general accident of reality. Computer techniques of modelling nonlinearity have, as megamachinic intelligence has accumulated, been adopted by agencies of control and security in the hope of warding off the threat of social turbulence. Detailing the work done on chaos theory and war, Da Landa describes how "the outbreak of military conflict is mathematically speaking related to the events at the onset of turbulence. Critical points in weather patterns, in the size of urban masses or in the distribution of political and economic forces, could be among the contributing factors in the self-assembly of different of different armies in history. . . Thus, in the case of the nomads (the Mongol invasion referred to earlier) a cyclic singularity in the weather (called a 'periodic attractor) signalled the onset of their turbulent behaviour."(WAIM 21)

Based upon a similar orientation of turbulence simulation, of the application of mathematics to social modulation, in a controversial project conducted by Christopher Zeeman in the 1970s at Gartree Prison near Glasgow, an attempt was made, using insights from the postmodern science of catastrophe theory¹⁷¹ to develop a model to help predict¹⁷² and so prevent the ignition of institutional rioting.

¹⁷¹ In his discussion of postmodern science in *The Postmodern Condition*, Lyotard summarises the insights of catastrophe theory, normally associated with Rene Thom (Lyotard quotes Thom "The catastrophe model reduces all causative processes to a single one, easy to justify intuitively: conflict, the father of all things according to Heraclitus.") with the following example; "Take aggressiveness as a state variable of a dog; it increases in direct proportion to the dog's anger, a control variable. Supposing the dog's anger is measurable, when it reaches a certain threshold it is expressed in the form of an attack. Fear, the second control variable, has the opposite effect; when it reaches its threshold it is expressed as flight. In the absence of anger or fear, the dog's behaviour is stable . . . But if the two control variables increase together, the two thresholds will be approached simultaneously: the dog's behaviour becomes unpredictable and can switch abruptly from attack to flight, and vice versa. The system is said to be unstable: the control variables are continuous, but the state variables are discontinuous."(59)

¹⁷²In a convergent analysis of architecture entitled *Folds, Bodies & Blobs*, Greg Lynn discusses the uses made in architectural design of Rene Thom's Catastrophe Theory. Drawing from Thom's *Structural Stability and Morphogenesis* (1975) trans. D.H. Fowler (Reading, Mass., 1975). , Lynn argues that "where one would expect that an architect looking at catastrophes would be interested in conflicts, architects are finding new forms of dynamic stability in these diagrams. The mutual interest in Thom's diagrams point to a desire to be involved with events which they cannot predict. The primary innovation made those diagrams is the geometric modelling of a multiplicity of possible co-present events at any moment. Thom's morphogenesis engages seemingly random events with mathematical probability.

Thom's nets were developed to describe catastrophic events. What is common to these event is an inability to define exactly the moment at which a catastrophe occurs. The loss of exactitude is replaced by a geometry of multiple probable relations. With relative precision, the diagrams define potential catastrophes through cusps rather than fixed points. Like any simple graph, Thom's diagrams display X & Y forces across two axes of a gridded plane. A uniform plane would provide the potential for only a single point of intersection between any two X & Y co-ordinates. The simple topological surface of Thom's diagram is capable of infolding in multiple dimensions. Within these folds, or cusps, zones of proximity are contained. As the topological surface folds over and into itself multiple possible points of intersection are possible at any moment in the Z dimension. These co-present Z-dimensional zones are possible because the topological geometry captures space within its surface. Through proximity and adjacency, various vectors of force begin to imply these intensive event zones. In catastrophic events there is not a simple fixed point at which a

We see in Zeeman et al. an application of Catastrophe theory to institutional disturbance, an orientation towards control which permeates the non-linear sciences from weather forecasting to economic modelling. Disturbance is mathematized in relation to 1) tension (frustration, distress) and 2) alienation (division, lack of communication, polarisation). Two crude axioms are asserted corresponding to these variables - "1)The more tension, the more disorder. 2) The more alienation, the more sudden and violent are the outbreaks of disorder." It is argued by the authors that even though these axioms are crude and simplistic, they facilitate sufficient mathematical information to construct the graphical shape of 'cusp catastrophe' of a prison riot. Their hypotheses contend that in an institution there is a tendency to avoid the attractors of 'quiet' and 'disturbance' "the institution may be said to have to an overall homeostatic tendency to keep within a 'moderate level of disorder'". But as the authors admit, with this contention the model still remains deterministic. Within their model therefore, giving it a sensitivity to contingent reality, "External events, or internal incidents within the institution can be represented as stochastic noise." This case study is strongly

catastrophe occurs but rather a zone of potential events that are described by these cusps. The cusps are defined by multiple possible interactions implying, with more or less probability, multiple fluid thresholds. Thom's geometric plexus organizes disparate forces in order to describe possible types of connections."(125-126)

emblematic of the imperative of *programmed catastrophe* and *turbulence simulation*. Its emphasis on predictability, on the insights to be fed into institutional decision making processes is typical of postmodern control's attempt to 'run the future', warding off critical cusp points where laminar flow begins to self-organise thereby threatening the parameters of organisation.

From discipline to control

In their heavily Foucauldian discussions of postmodern penalty¹⁷³, Feeley & Simon point to the transformation of the US criminal justice machinery to a mode of cybernetic governmentality which they describe as *actuarial justice*. Emphasising the rational management and regulation of the population as a statistical aggregation, actuarialism¹⁷⁴ marks a general transition to the transcarceration of what Deleuze terms control societies, to the strategic interchangeability and continuous control of the carceral continuum; "Indeed the distinctive ~~vs~~ claim of operations research¹⁷⁵

¹⁷³ Specifically, Jonathon Simon analyses 'postmodern penalty' in his book *Poor Discipline: Parole and the Social Control of the Underclass, 1890-1990*, Chicago: Uni. of Chicago Press.

¹⁷⁴ Simon, with Malcolm Feeley introduce the notion of 'actuarialism' in their essay entitled 'Actuarial Justice: the Emerging New Criminal Law' in D. Nelken (ed) *The Futures of Criminology*, (1994) London: Sage.

¹⁷⁵ Operations research otherwise known as systems theory and analysis emerged out of the post-war period in the disciplines of electrical engineering, mathematics and physics. "It was first introduced into the practice of government in the early 1960s by US Secretary of Defense, Robert McNamara, to rationalise Pentagon procurement practices. It was quickly applied to a host of other areas, including the criminal process. This step was bold and deliberate; a group of 'whiz kid' consultants to the Department of Defense were appointed to

is that it offers generic insights and techniques for managing seemingly different phenomena and systemic processes- airports, communications, manufacturing, criminal justice."¹⁷⁶ Feeley & Simon argue that this systems approach adopts a 'funnel of justice' flow chart with the new primary protocol the efficient management of danger; it is an orientation "that invites us to think about the elimination of bottlenecks, pre-trial diversion, 'early case assessment' bureaus to weed out 'junk cases', 'fast track' prosecution bureaus to go after career criminals, use of probation and parole revocations to avoid the 'trial loop', 'selective incapacitation' to deploy limited prison space more efficiently. . ."¹⁷⁷

From welfare to warfare.

A similar Foucauldian emphasis on urban enclosures is delivered by Mike Davis's depiction of 'Fortress LA'; but the hyper racialized carceral city is inscribed with all the signals that such institutional formations are simultaneously consolidating in a logic of simulation, just one example being in advanced criminal justice machinery's urban cartographies of ecologies of fear.

staff a Task Force for the President's Commission on Law Enforcement and Administration of Justice, and subsequently published the Task Force Report: Science & Technology (1967) which became one of the Commission's most widely read reports. In the midst of an escalating war on crime, modern systems analysis, the latest Defense Department technique, gained instant credibility and appeal." 'Actuarial Justice' p187.

¹⁷⁶ 'Actuarial Justice' p187.

¹⁷⁷ 'Actuarial Justice' p188.

4.3.3 Flashpoint: street turbulence and overexposure

“So-cal becoming minoritarian. 1992 prime time. Judicial rubber stamping of video captured micro-fascism ignites urban turbulence. The anti-black counter-insurgency of ‘the dream city of free circulation’ programmed to irrigate afro futurist hydraulics. Discard population or resort to modulation, integrate or exterminate.”¹⁷⁸

“the wind of violence, unleashed, mastered, lost, retaken, delirious, and disciplined. It subsides and swells like action, disorder and danger, to be controlled. . .from bodies to the collective, in a lightening short circuit without language, through the groundswell of violence and pandemonium.”¹⁷⁹

In a collection of essays published shortly after the LA Riots of 1992, the discontinuity of this global media singularity was underlined. All agreed that comparisons with the Watts Riots of 1965 were only partially justified. All agreed that the complex intertwining of media technologies webbed through the event, marked it off as a key threshold of postmodern violence and marking key shift *from discipline to control, from welfare to warfare and from surveillance to monitor.*¹⁸⁰

¹⁷⁸ 18 in S. Goodman (1998) *Darkcore*, abstract culture, swarm 3, issue 13.

¹⁷⁹ 35 in M. Serres (1995) *Genesis*.

¹⁸⁰ “The defence tactics relied upon resetting the video footage of the beating in a larger temporal frame (what happened prior to the time that the camera was turned on), slowing down the speed of the video and freezing different moments of it (so as to give plausible alternative interpretations of the spatial relations and the movement so the various viewed person), and repetition of the video during the course of the trial (so as to habituate the jurors to the use of force). All of these tactics were techniques for disciplining the viewing of the jurors so that they plausibly see from the eyes of the officers.”(186)

From surveillance to monitor describes the shift from the singular 'eye' to the plural 'eyes', the singular vision of panopticism with its idea of an objective vision of control through visibility, to the stereoscopic vision of more pluralistic techniques of observation that have emerged in the twentieth century."⁽⁸⁶⁾ Monitor, signals the distribution of and crack up of techniques of panoptic observation. As a more modest task, monitor "provides partial coverage of dangerous spaces, not to pretend to make surveillance perfect, but only to ensure that in protected zones defensive actions might be taken in response to invasions."⁽¹⁸⁶⁾

"Lamination- the capture of decoded flows using LAPD rhizomaniac vortices sent through South Central searching and sucking up all amateur footage of the riots, the fear of an unmeasurable speed. Naked LAPD, slooshing down media meme pool flumes entangled with the Kings' other body, Rodney King. In South Central the memes go swimming in a flashpoint to urban turbulence."¹⁸¹

In Thomas Dumm's essay, "The New Enclosures",¹⁸² he describes the racialized matrix which the event was processed through. This matrix inscribed Rodney King's black body within a semiotic regime of danger. Dumm places the event at the apex of modern and postmodern violence marking the transition from Foucault's

¹⁸¹ 19 in S. G Goodman (1998) Darkcore, abstract culture, swarm 3, issue 13.

¹⁸² From Dumm's essays we can derive useful depictions of post-disciplinary power. Ultimately, Dumm's analysis seems flawed for its "typically American" Foucauldian analysis more attuned to a radical humanism rather than staunch anti-humanism. Secondly, and relatedly, Dumm's post-structuralism forces his analysis of media 'representations' and 'discourse' rather than a more materialist 'machinic postmodernism' which Deleuze & Guattari's Foucault connects to.

disciplinary society of surveillance to the post-disciplinary society of 'monitor'. With Rodney King, Dumm argues, we move into a neo-archaic scenario of simulated sovereign phase penalty - it "returns the relationship of criminal and sovereign power to an earlier moment in the history of crime, when the role of the spectacle of public punishment was crucial to determining the meaning of crime and its punishment. But there is one difference. Now, instead of a liturgy of punishment in front of the assembled crowd," the torture flows through as information through a media-scape of the society of the spectacle.

As Dumm points out, "The move from surveillance to monitor is consistent with the emergence of the spectacle in the twentieth century. The politics of the contemporary spectacle as opposed to the classical spectacle of the scaffold, are strongly influenced by the fact the contemporary spectacle is mediated by cinematic and electronic technologies. . ."(187) not just as technologies of capture, but more importantly in their machinic surplus value and the unintended consequences of their (ab)-use. From the point of view of control, "the real scandal of the King affair might be that it began as a spectacle not controlled those powers [i.e. the state and corporate entities which filter image content into the programming grids of network T.V.] The privately shot video was a new phenomenon, and not yet subject to the scrutiny of the sort of

editorial judgements to which such videos are likely to be subjected in the future. In the proper order of things, the police would be able to monitor public places with their helicopter, patrol cars, and video cameras. The appearance of a video which monitored the monitors, resonated as a latter-day instance of the Carnivale of the European Middle Ages.”(187) Again, following Foucault, Dumm points out that the “techniques of surveillance which gave rise to modern police forces were designed to individualize even as they normalised. They accompanied a regime of rights.”(187) However in post-disciplinary monitor “a move is made from the correction of individuals to control of populations, rights become anachronistic.”(188)

“Ultra-real video capture dissolves nostalgia. LA Law edits Kings beatings to generate bizarre retrospective lubrication for control machinery. Digital cut ups of the video, freeze framing, stretching and looping the baton swings in order to saturate Kings black body in signs of danger, fight and flight.”¹⁸³

Through digital sensing, *monitor as turbulence simulation* feeds back into the actual as with Davis’ description of remote control security during the LA riots; “By flicking a few switches on their command consoles, the security staffs of the great bank towers were able to cut off all access to their expensive real estate. Bullet-proof steel doors rolled down over street-level entrances, escalators

¹⁸³ 19 in S. G Goodman (1998) Darkcore, abstract culture, swarm 3, issue 13.

instantly stopped and electronic locks sealed off pedestrian passageways. As the Los Angeles Business Journal pointed out in a special report, the riot-tested success of corporate Downtown's defence has only stimulated demand for new and higher levels of physical security."¹⁸⁴

"Riot coverage shot from helicopters doubles as news footage indicating a shift from the ubiquitous vision of the sovereign to the stereoscopic partial coverage of monitor. Zoom lens technology advances since Watts'65 engage a regurgitative potential. The eye converges with the arm. Visibility is death. Lasered futures. Absolute speed."¹⁸⁵

For Davis programmed catastrophe inhabits the 'virtual scanscape of the electromagnetic spectrum in moving beyond mere surveillance when the eye watching is the AI of a sentient skyscraper (eg. Die Hard). In fact postmodern control moves beyond Foucault's analysis of the visible; "The sensory system of the average office tower already includes panoptic vision, smell, sensitivity to temperature and humidity, motion detection and in some cases, hearing."¹⁸⁶

In the period of *turbulence simulation* and *programmed catastrophe*, as Davis notes "The contemporary city simulates or hallucinates itself in at least two decisive senses. First, in the age of electronic culture and economy, the city redoubles itself through

¹⁸⁴ Davis 1993 4.

¹⁸⁵ 19 in S. Goodman (1998) *Darkcore*, abstract culture, swarm 3, issue 13.

¹⁸⁶ *Ibid.* 7.

the complex architecture of its information and media networks. .
.a luminous geometry of this mnemonic city where data-bases have
become 'blue pyramids' and 'cold spiral arms'. .Urban cyberspace.
. .will be experiences as even more segregated and devoid of true
public space that the traditional built city. South Central LA, for
instance is a data and a media black hole."¹⁸⁷ The other side of this
hyperreality is the safe-havens and simulations of the theme parks,
the postmodern cliché disrupted by the persistence of micro-
fascism.

¹⁸⁷ Ibid. 6.

sector 5. The tao of turbulence

“How can I speak to you? You remain in flux, never congealing or solidifying. What will make that current flow into words? It is multiple, devoid of causes, meanings, simple qualities. Yet it cannot be decomposed. These movements cannot be described as the passage from a beginning to an end. These rivers flow into a single, definitive sea. The streams are without fixed banks, this body without fixed boundaries. This unceasing mobility. This life- which will perhaps be called our restlessness, whims, pretences, or lies. All this remains very strange to anyone claiming to stand on solid ground.”(Luce Irigaray)¹⁸⁸

“When you have come to grips and are strung together with the enemy, and you realise that you cannot advance, you ‘soak in’ and become one with the enemy. You can win by applying a suitable technique while you are mutually entangled.”(Miyamoto Musashi)¹⁸⁹

¹⁸⁸ 215 in ‘When Our Lips Speak Together’, L. Irigaray (1985) *The Sex Which Is Not One*, NY: Cornell University Press.

¹⁸⁹ 75 in M. Musashi (1974) *A Book of Five Rings*, London: Flamingo.

5.1 Hydrophobia: fascist speed

5.1.1 Speed, Metal & War: Virilio's Marinetti

"One must persecute, lash, torture all those who sin against speed."(F.T. Marinetti)¹⁹⁰

To a large extent, when Paul Virilio concludes his analysis of speed with reference to its essentially fascist character, his judgement resides on his view of the futurism of Marinetti¹⁹¹. In several places, Marinetti is given as an illustration of Virilio's argument concerning transport, movement and technology and *the archetype of the ocean* as the model of smooth space. In *Speed & Politics* Virilio describes how speed "as a pure idea without content comes from the sea like Venus, and when Marinetti cries that the universe has been enriched by a new beauty, the beauty of speed, and opposes the race car to the Winged Victory of Samothrace, he forgets that he is really talking about the same esthetic; the esthetic of the transport engine. The coupling of winged woman with the ancient war vessel and the coupling of Marinetti the fascist

¹⁹⁰ 95 in Marinetti, *Selected Writings*.

¹⁹¹ As way of background, for the discussion of Marinetti's futurism in relation to this cartography, it is useful to point to the influence of Sorel's philosophy of violence. Explicating his line of development also connects the philosophies of Nietzsche and Bergson to Marinetti, making it easier to extricate Deleuze & Guattari's anti-fascist neo-futurist speeds from the singularity of Italian fascism in which Marinetti gets submerged. George Sorel's *Reflections on Violence* constitutes a rant against parliamentary socialism of the early 20th century advocating a mythic violence taken up by Marinetti in his war as hygiene. Sorel, combines a Marxist reading of Nietzsche's will to power and Bergson's *elan vital* into a proletarian epic. His ideas, taken up across the political spectrum, have been noted as a key germinal theorization taken up by Italian fascism. All full discussion of the background connections of Marinetti's futurism can be found in

with his race car, "ideal shaft crossing over the earth," whose wheel he controls, emerge from this technological evolutionism whose realization is more obvious than that of the living world. The right to the sea creates the right to the road of modern States, which through this become totalitarian States."(SP 43)

Later in the text, Virilio makes the central connection between speed, war and futurism describing how in 1921 "Marinetti metaphorizes about the armoured car: the overman is over-grafted, an *inhuman type* reduced to a driving- and thus deciding principle, an animal body that disappears in the superpower of a metallic body able to annihilate time and space through its dynamic performances. Vain attempts have been made to fit Marinetti's works into various political categories; but futurism in fact comes from a single art- that of war and its essence, speed. Futurism provides the most accomplished vision of the dromological evolutionism of the 1920s, the measure of superspeed! In fact, the human body huddling in the "steel alcove" is not that of the bellicose dandy seeking the rare sensations of war, but of the doubly-unable body of the proletarian soldier. Deprived, as he has always been, of will, he now requires physical assistance from a vehicular prosthesis in order to accomplish his historical mission, Assault. The dromomaniac's kinetic superpower

is suddenly devalued.”(SP 62) But Virilio could be more explicit about the different speeds on the war continuum. Marinetti celebration of speed, for example and its corresponding configuration of the man-machine interface seems very different from Deleuze & Guattari’s intensive nomadic speed. For Marinetti, speed is militarized, forced into rank and file, channelled only to explode even more violently, purging the world of the dead weight of resentment culture. Marinetti in his misogyny goes as far as glorifying war as “the world’s only hygiene- militarism, patriotism, the destructive gesture of freedom-bringers, beautiful ideas worth dying for, and the scorn for woman.”¹⁹² The modern world is graced by a new divinity, its “magnificence has been enriched by a new beauty; the beauty of speed”¹⁹³ Picking up where Nietzsche’s critique of slave morality left off and constructing the ubermensch as the iron man or Terminator, Marinetti stood as a priest of the ‘The New Religion Morality of Speed’; “One must kneel on the tracks to pray to the divine velocity. One must kneel before the whirling speed of a gyroscope compass. . .one must snatch from the stars the secret of their stupefying, incomprehensible speed. . .Wars in which the stars, being both missiles and artillery, match their speeds to escape from a greater star or to strike a smaller one.”¹⁹⁴ In dionysian fashion, he notes how “Christian morality

1899-1909 (1995), Leeds: The Society for Italian Studies.

¹⁹² 42 Selected Writings.

¹⁹³ 40 Selected Writings.

¹⁹⁴ 96.

defended the physiological structure of man from the excesses of sensuality. It moderated his instincts and balanced them. The Futurist morality will defend man from the decay caused by slowness, by memory, by analysis, by repose and habit. Human energy centripeted by speed will master Time and Space."¹⁹⁵

Marinetti's speed often appears purely extensive and instrumental; "Tortuous paths, roads that follow the indolence of streams and wind along the spines and uneven bellies of mountains, these are the laws of the earth. Never straight lines; always arabesques and zigzags. Speed finally gives to human life one of the characteristics of divinity; the straight line."¹⁹⁶

With a typical emphasis on catharsis, war purges the world of the enemy of futurism;

"*Speed*, having as its essence the intuitive synthesis of every force in movement is naturally *pure*. *Slowness*, having as its essence the rational analysis of every exhaustion in repose, is naturally *unclean*. After the destruction of the antique good and the antique evil, we create a new good, speed, and a new evil, slowness.

Speed = synthesis of every courage in action. Aggressive and warlike.

Slowness = analysis of every stagnant prudence. Passive and pacifistic.

Speed = scorn of obstacles, desire for the new and unexplored. Modernity, hygiene.

Slowness = arrest, ecstasy, immobile adoration of obstacles, nostalgia for the already seen, idealization of exhaustion and rest, pessimism about the unexplored. Rancid romanticism of the wild, wandering poet and long-haired bespectacled dirty philosopher."¹⁹⁷

¹⁹⁵ 95.

¹⁹⁶ 95.

¹⁹⁷ 95-96.

And of course Marinetti's true love was a car which served as a mobile church in which he could worship rapidity by disappearing into the tunnel of the straight line in a blur; "The intoxication of great speeds in cars is nothing but the joy of feeling oneself fused with the only *divinity*."¹⁹⁸ The flaneur of the 19th century mutates into the driver cocooned within the cockpit, fortified against the turbulent outside, aghast at the sublimity of remixed nature viewed through cinematic windscreens; "The practice of visual foreshortening and synthesis created by speeding trains and automobiles looking down upon cities and the countryside. Horror of slowness, trifles, analysis and minute explanations, love of speed, abbreviation and summary."¹⁹⁹ That feeling described by Freud as 'oceanic', of fusion with the cosmos for Marinetti shreds the modern subject into a tangle of shooting tracers. In an essay entitled 'Destruction of Syntax - - Wireless Imagination- - Words in Freedom' he succinctly summarizes the impact of machines of the human; "Acceleration of life to today's rapid rhythm. Physical, intellectual and sentimental balance upon a tightrope of speed stretched between contrary attractions. Multiple, simultaneous consciousness in a single individual."²⁰⁰ He is drugged by the emerging new windows onto the machinic phylum, at the sight of multi-scalar parallel processes of nature. Speed for Marinetti seems to be accompanied therefore by rushing dissolution of the ego and

¹⁹⁸ 96.

the speed war is a fight against “the obsessing ‘I’ which poets have described, sung, analysed and vomited up to this day. To get rid of it, we must abandon the habit of humanizing nature by attributing human passions and preoccupations to animals, plants, water, stones and clouds. Instead we must express the infinitely tiny all around us, the imperceptible, the invisible, the agitation of atoms, the Brownian movements, all the passionate hypotheses and dominating explorations of high-power microscopes.”²⁰¹

Marinetti bows down to the dark side of speed, where id gets scientific transforming into the predatory machine; “Man multiplied by the machine. A new mechanical sense, a fusion of instinct with the efficiency of an engine and conquered force”, producing an “earth made smaller by speed”²⁰²

5.1.2 Hydrophobia:

Theweleit, floods and the fascist hard metal body

Perhaps the clearest example of this fascist speed critiqued by Virilio who perceives it at play in Marinetti’s aesthetic is given by Klaus Theweleit in his analysis of the fascist masculinity of the Freikorps or Stormtroopers of pre and early Nazi Germany. Theweleit maps out the rigid, contorted and paranoid dynamics evident in the discourse of the soldiers. Like Marinetti, Theweleit

¹⁹⁹ 47.

²⁰⁰ 45.

²⁰¹ 49.

unveils an aesthetic of speed and explosion emanating from the intensity of the battle field, which continues to resonate in the *cold steel body poliorcetics* of fascist libido. Metabolic projectile fuses with vectors of speeding metal bullets in a thanatocratic nose-dive. It is a libidinal mechanics of fortified desire exploding as massive discharge projected outward, "bullets hurtling from the military machine toward their body-targets. At these moments, they anticipate the most intense possible sensation; but it is their own velocity they continuously evoke to legitimise their movement of eruption and penetration into the body of the enemy. . . Speed is a key category for the soldier body. It needs to heat up, rev up, and race physically, before charging physically toward the site on which it expects to experience itself in the streaming of pleasure."²⁰³ Speaking specifically of Marinetti, Theweleit shows how "To escape from one's own boundaries, and attain the object of pleasure by way of violent, intoxicating acts is a need the armoured body has, one expressed using the technological concept of speed."²⁰⁴ Importantly, Theweleit is careful to point out contra Fromm, that Marinetti, in his deification of speed and machines is not a technologist as such, but rather appeals to the dark side of technology, the *darkside of speed*; Marinetti appeals to the "untechnological side of technology", it is a conception of the machine which is quite "untechnical."

²⁰² 46.

In his discussion of 'Floods, Bodies and History' in *Male Fantasies* vol.1, Theweleit attempts to clarify a reading strategy for the images of 'flow' in fascist texts. He therefore tries to contextualize the soldiers' attraction to speed, rushes and torrents. In a different way from De Landa, Theweleit also follows Deleuze & Guattari's *machinic postmodernism* and its attempted sidestepping of metaphor. Theweleit sets out to avoid an ideological, interpretative approach to the texts, to the discourse of the fluid. Theweleit argues that one response to the texts would be depict them as reactive for their naturalisation of political processes. He suggests however that this is merely to suggest the natural images of flow used are ideological veils disguising reality thereby testifying to the fascists false consciousness. "In other words, this interpretative reflex reacts to sentences of that kind simply by proclaiming them 'lies' or 'nonsense,' adding perhaps, as a corrective that politics are not nature, and those fascists should be ashamed of themselves."²⁰⁵

However, for perhaps similar reasons to De Landa's materialism, Theweleit appears to want to read the metaphors of flow literally, to ask how the discourse works as opposed to its meaning. He argues that it is the specific use to which the texts are put which

²⁰³ Theweleit vol.2 181.

causes everything to flow. The "soldiers, conversely, want to avoid swimming at all costs, no matter what the stream. They want to stand with both feet and every root firmly anchored in the soil. They want whatever floods may come to rebound against them; they want to stop, and dam up, those floods. . . Nothing is to be permitted to flow, least of all 'Redfloods' If anything is to move, its should be the *movement* (i.e. oneself) - but as *one* man; in formation: on command as a line, a column, a block; as a wedge, a tight unit. Death to all that flows."²⁰⁶ Fascist speed is tightly entwined therefore to a tracing of the solid earth as inert surface for active flow.

The primary process which Theweleit maps is the flows of desire of these fascist men. The features of this map, mark the dynamics of a body poliorcetics or body fortressing, a reterritorialization of desire with the implied threat of exteriority flooding in and implosion from within as internal dam rupture. For Theweleit the "flood is abstract enough to allow processes of extreme diversity to be subsumed under its image. All they need have in common is some transgression of boundaries. Whether the boundaries belong to a country, a body, decency or tradition, their transgression must unearth something that has been forbidden. . . This is when the

²⁰⁴ 452.

²⁰⁵ 230 in Theweleit vol.1.

²⁰⁶ 230.

flow begins, inside and out, exciting and frightening at the same time. The closer the flood is, the more dangerous it seems."²⁰⁷

All affective charge is invested in the precise moment of discharge "when the dam bursts, the moment when the liquid crashes up against the solid and destroys it. It is as a result of this act that something really begins to *flow*; the blood of whoever has been killed. To collide with a redflood meant death; the solid dissolves (whether the flood come from within or without)"²⁰⁸

In order to find the source of these flows which Theweleit maps in fascist discourse, he engages in a broader discussion of 'flow' in human history, ultimately mapping it onto the opposition between man and woman. He follows the cosmic materialism of Deleuze & Guattari when they ask "Who does not feel in the flows of his desire both the lava and the water?"(AO: 67) deepening his discussion of flow by moving towards the notion and history of libidinal streaming. Theweleit notes that Reich for example, conceptualises the orgasm as streaming along a model of tension and release. Bodily flows drift with the latest developments in the physics of fluid mechanics. Following Starobinski's work, *Literature and Psychoanalysis*, Theweleit gives the example of flows of desire as operating in a dynamic magnetic field; for some this is a

²⁰⁷ 233.

dynamic of interiority, for others it melds interiority onto the outside so that flows traverse bodies. In the opposition between 'endo-fluidism' and 'exo-fluidism', Theweleit registers that psychoanalysis is built around a 'restricted model of fluidity,' concerned as it is with policing interiority.

The late Freud of *Civilization and its Discontents* testifies to the psychoanalytic irrigation of flow through the unwillingness to admit that the ego has highly permeable and unstable boundaries facing beyond the individual boundaries, facing beyond the individual body. In complaints typifying his bourgeoisie intellectualism, Freud moans "I cannot discover this 'oceanic' feeling in myself. It is not easy to deal scientifically with feelings. One can attempt to describe their physiological signs. Where this is not possible - and I am afraid that the oceanic feeling too will defy this kind of characterisation- nothing remains but to fall back on the ideational content which is most readily associated with the feeling. . .it is a feeling of an indissoluble bond, of being one with the external world as a whole. . .From my own experience I could not convince myself of the primary nature of such a feeling."²⁰⁹

As Theweleit points out, "Freud strives to go *upward*, for him that whole oceanic business is somehow under water, dark and

²⁰⁸ 234.

threatening."²¹⁰ Theweleit expanding on *Anti-Oedipus* denotes this libidinal irrigation system as the triangular network of channels which constitutes for Deleuze & Guattari, the Oedipus complex, prioritising a kind of theatrical representation over a viscous production system. Deleuze & Guattari's move is to connect that which is 'deep inside', the unconscious to that beyond individual boundaries; desire as primary process is always social. This connection pulls the inside onto a plane of exteriority. It is concepts such as *the body without organs* or as we have seen earlier, the *plane of consistency* which allows this topology of interiority, folding it always onto the outside, revealing interiority, an individualising circuit of subjection working on a higher level. Rather than start from a notion of the whole, whether it be the social of human organism, Deleuze and Guattari build up from the bottom so that the body constitutes an assemblage of potential connections, plug-ins couplings or switches traversed by the rhythm of the break-flow.

*The body without organs*²¹¹, pre-socialised matter serves as a surface for the flows of desire produced in the unconscious.

²⁰⁹ Freud 252 in *Civilization & its Discontents*.

²¹⁰ 253.

²¹¹ In perhaps one of the most interesting secondary discussions of the *body without organs*, architectural theorist Greg Lynn conceptualises the bwo as a blob. He traces the history of blobs from B-movies to cyberpunk classics such as *Terminator 2's* T-1000 liquid metal machine. This latter example starkly contrasts the crude power of the muscled man or man of steel as opposed to the alien wet intelligence of the mercury like fluid.

5.1.3 Micropolitics of Fascism

“One must always keep ‘on the subject’ and ‘in line’. But desire by its very nature keeps tending to get ‘off the subject’, to wander away.”(Felix Guattari)²¹²

The importance of distinguishing fascist speeds from nomadic speeds is intensified by the fluidification of power in postmodernity into the modes which we have referred to as *programmed catastrophe or turbulence simulation*. Mobile power, not just tied down to the roots of the State, but escaping the State in the service of higher order deterritorializations and reterritorializations, of a global war machine, which everywhere releases its flows through the checkpoints of national jurisdictions. As has been reiterated here, smooth space is not a promised land and does not stand in a binary opposition to striated space. Smooth space in postmodernity is the site of a contest between nomos and fluid logos. We need a further description of conflict in smooth space. This is provided by Deleuze & Guattari’s molecular analysis of fascism, of how it constitutes not just a singular event in the history of European nation states but rather exists on a continuous plane stretched no doubt into the 21st century. The plane is the microphysics/politics of desire, the intricate libidinal infrastructure to the great molar organizations of states and corporate entities. This micropolitics helps distinguish fascist speeds from nomadic speeds, rhizomania from rhizomatics.

For Deleuze & Guattari, the endocolonisation of Europe which Hitler's National Socialism stood for, thrust the world system into a new phase space. Out of the black hole of the concentration camps, demolished cities and mortuary trenches emerged a new peace even more terrifying. In their universal machinic history, Nazism is retrospectively understood, most importantly as a challenge to international capitalism in its suicidal collective magnetism to death. From the point of view of international capitalism, with its twin megamachinic components at the despotic and democratic poles, Nazism could only be dealt with once the system had consolidated a more effective stratificatory machine to irrigate and dam mass desire, thereby making possible allied pacts including Stalin against Hitler's regime. Capitalism as an experimental axiomatic system selects and discards models of actualisation, of state regulation of decoded and deterritorialized flows on a logic far more basic than the projection of the upholding of civilization. National Socialism was not a blip on the evolutionary wave pattern of Occidental democracy, but rather was generated from within the bio-technics of bourgeois capitalism. As Guattari notes, "Whatever else it may have been, the alliance between the Western democracies and Stalin's totalitarianism was never directed to 'preserving democracy'. Its prime aim was to destroy a lunatic

²¹² (MPF: 221)

machine that posed a threat to their own system of domination.”(MPF: 226) Rather than the red flood of the October revolution, Italian and German fascism crystallized despotic systems far more threatening. In fact, for Guattari, they threatened both Western capitalism and Stalinism through the unprecedented unleashed suicidal war machine. “By re-territorializing their desire upon a leader, a people, a race, they were destroying, in a phantasy of catastrophe, a reality they hated- a reality that the revolutionaries either couldn’t or wouldn’t grapple with. Virility, blood, Lebensraum and death replaced for them a socialism too respectful of the prevailing values - and this despite the intrinsic dishonesty of fascism, its fake challenges to the absurd, its whole theatrical display of collective hysteria and feeblemindedness which brought them back again to those same values.”(MPF: 226)

Following this line of inquiry, Deleuze & Guattari in *A Thousand Plateaus* mark off the specificity of fascist megamachines from merely totalitarian ones. They are conceptualised here as distinct modes because of the sheer quality of fascist economies relation to a war economics, both domestic and foreign, its suicidal character and therefore its unsustainability. Discussing Daniel Guerin’s *Fascism and Big Business*, Guattari asks why German capitalism, after loosing WW1 and suffering the depths of the 1929 economic crisis, do not merely settle for military dictatorship. But the answer

is clear when the acceleration of the Nazi system is tracked. Paraphrasing Guerin, Guattari answers that "big business hesitated to deprive itself of such an incomparable, irreplaceable means of penetration into every cell of society as the fascist mass organizations.' Indeed, no military dictatorship could have succeeded in controlling the people as effectively as a party organized along police lines. No military dictatorship could mobilise libidinal energy like a fascist dictatorship, even though many of their end results might appear identical, even though they might resort to the same repressive methods, the same tortures, the same concentration camps and so on."(MPF: 224)

This being said, it is quite clear that Guattari's aim is to complexify his analytic cartography of fascism. He seeks to molecularise his object as far as possible to avoid the crude comparisons and oversimplifications which make a mockery of analyses of fascism. Guattari puts forwards a *social chemistry*²¹³ alerting us to its

²¹³ "We have to try to analyse its 'machinic composition' - which is a bit like analysing something's chemical composition, but in this case it is a social chemistry of desire running not only through History, but also through the whole expanse of society."(MPF: 223) "The historical transversality of the desire machine on which totalitarian systems are based is inseparable from their social transversality. The analysis of fascism cannot be left just to the historian, because the processes established by it in the past are, as I say, still proliferating in different forms throughout the entire expanse of society today. There is a totalitarian chemistry at work in our State structures, our political and trade-union structures, our institutional and family structures, even in our individual structures - in the sense that one can, as I have suggested, talk of guilt-feelings and neurosis as a kind of fascism of the super-ego."(MPF: 223) In Guattari's *social chemistry* of fascism Hitler serves as a *catalyst*; "The conjunction in the person of Hitler of at least four different strands of desire resulted in crystallizing among the mass of the people the mutation of a new desire machinism:

composition and its relations of speed and slowness. In terms of cartography he maps the longitude and latitude of fascist bodies (see 5.3). Most importantly he recognises how the continuity of modes, under different guises, of the very same configurations of desire.

The moment one looks at machinic composition, all the multiplicity of sub-components, then the assemblages which we know as fascist, Stalinist or democratic appear to share and differ in unexpected ways. If we focus on industrial machines, military machines, politico-police machines, state techno-structures, banking machines or churches, then, as Guattari notes, there can

-a certain plebeian style, which enabled him to get the support of all who were to any extent affected by the social-democrat and Bolshevik machines;
 -a certain army veteran style, symbolised by his Iron Cross from the 1914 war, which enabled him to neutralise the military, even if he could not gain their entire confidence;
 -a shopkeeper-style opportunism, a yieldingness, a pliability, that enabled him to negotiate with the magnates of finance and industry, while giving them the impression that they could easily control and manipulate him;
 -finally, and perhaps most importantly of all, a racist mania, a crazy paranoiac energy that was in tune with the collective death instinct let loose in the charnel houses of the First World War. . .the local conditions that made the Fuhrer's 'irresistible ascent' possible, producing that extraordinary, machinic crystallisation of desire in Hitler, were anything but negligible."(MPF: 224-225)
 "The role of Hitler, as an individual with a specific ability, was of course negligible; but his role, as crystallizing a new form of that totalitarian machine, was, and still is, fundamental. For Hitler still lives. He is still active in dreams, in delusions, in films, in police torture rooms, and among the young who value mementoes of his even though they know nothing of Nazism."(MPF: 224) "The micro-politics that created Hitler concern us, here and now. . .in as much as new micro-crystallizations of fascism have replaced that old on the same totalitarian, machinic phylum. On the ground that the part played by the individual in history is negligible, we are advised to stand idly by while local tyrants and bureaucrats of all sorts perform their hysterical antics and paranoid double-dealing. The function of a micro-politics of desire will be to denounce such passivity, to refuse to countenance any expression of fascism at any level."(MPF: 225)

be more diversity of modes within fascism itself,²¹⁴ than for example between fascism and Stalinism. Understood on a *continuum of war* suffering varying degrees of stratification then "it is impossible not to accept the continuity of one and the same totalitarian machine, worming its way through all the structures of fascism, Stalinism, bourgeois democracy and so on. . .The different totalitarian systems have produced different formulae for controlling the desire of the masses, to suit the changes in the productive forces and production relations."(MPF: 223)

Guattari's micropolitics of fascism which underpins the analysis of fascism in the 2 volumes of *Capitalism & Schizophrenia* attempts to instate a fluid dynamics of desire which deviates from even the Frankfurt School's attempts to bring together Marxism and psychoanalysis. With Guattari, there is no need for a notion of a dialectic between structure and agency, between macro and micro. Rather the micropolitics of desire takes desire as always already social and builds its cartography bottom up, pointing to self-similar processes which constitutes the planes of organization of all social

²¹⁴ As Guattari notes, "There was not just one Nazi Party: not only did the Nazi Party change and develop, but at every period it had different functions depending on the areas in which it was active. Himmler's SS machine was not the same as the SA, and both were very different from the kind of mass organizations envisaged by the Strasser brothers. And even inside the SS machine one finds elements of quasi-religious inspiration - remember how Himmler wanted the SS to be trained along lines similar to the methods of the Jesuits - alongside the overtly sadistic practices of a man like Heydrich."(MPF: 222)

and sub-social systems²¹⁵. "The despotism so often prevailing in marital or family relationships grows out of the same type of libidinal engagement as despotism in society. Similarly, it is far from absurd to consider quite a number of large scale social problems - such as those of bureuacratism or fascism - in the light of the micro-politics of desire." (MPF: 218)

Obviously it is inconceivable to think of fascism without the totalitarian state. However, Deleuze & Guattari's point is that while fascism perfects this mode of molarity, it is more basically entwined in a whole array of molecular nodes, distributed across the libidinal field of the socius. It is only as a second order process that these forces resonate in what is known as the National Socialist State. "Rural fascism and city or neighbourhood fascism, youth fascism and war veterans fascism, fascism of the left and fascism of the Right, fascism of the couple, family, school and office; every fascism is defined by a micro-black hole that stands on its own and communicates with the others, before resonating in a great generalized central black hole."(ATP: 215) Each black hole, has a gradient down which the surrounding milieu is drained into its whirlpool of power. The decline down the gradient varies in terms of speed. The synchronisation of fascistic speeds across the social surface, "a *war machine* is installed in every hole, in every niche. .

.flows capable of suffusing every kind of cell.”(ATP: 215)

Microfascism as rhizomania is a fluid mass movement- it is in this that its very danger lies, its ability to escalate exponentially. Microfascism is closer to a “cancerous body rather than a totalitarian organism.” It is the danger against which Deleuze & Guattari warn most strongly, the danger of the “reversion of the line of flight into a line of destruction” which drives “the molecular focuses of fascism and makes them interact in a war machine instead of resonating in a State apparatus. A war machine that no longer had war as its object and would *rather* annihilate its own servant that stop the destruction. All the dangers of the other lines pale by comparison.”(ATP: 231) To ask how the line of flight turns into the line of destruction is to question how desire is forced to vent its energy against itself - “how can desire desire its own repression?” For Deleuze & Guattari all standard answers miss the point- “The masses certainly do not passively submit to power; not do they ‘want’ to be repressed, in some kind of masochistic hysteria; nor are they tricked by an ideological lure. Desire is inseparable from complex assemblages that necessarily tie into molecular levels. . .It’s too easy to be anti-fascist on the molar level and not even see the fascist inside you, the fascist you yourself sustain and nourish and cherish with molecules both personal and collective.”(ATP: 215)

And so as Guattari concludes in the *Micropolitics of Fascism*, “the problem is not one of linking up disparate domains that fully exist in their own right and are separate from one another, but of setting up new theoretical and practical machines capable of sweeping away earlier stratifications and creating the conditions necessary for desire to function in a new way.”(MPF: 218) To this end, an alternative account of speed and its machines, of war and its weapons, of desire and its investments will be developed in the following sectors. The preceding fluid mechanics which sets our analytic cartography in motion will now be pushed further out to sea, to provide a counter-fascist *ethics of speed, a tao of turbulence and a war hydraulics* all of which, form the sub-machines of what has generally been framed here as a *machinic postmodernism*.

5.2 War Hydraulics: non-fascist speeds

5.2.1 Landlocked

“These are the fantasies of a man fearing to advance over the sea, which gave birth to the last West Wall, the Atlantic Wall, looking out over the void, over this moving and pernicious expanse, alive with menacing presences; in front of the sea Hitler rediscovered ancient terrors: water, a place of madness, of anarchy, of monsters, and of women too...”
(Paul Virilio)²¹⁶

“On the western front, on the open sea and the liquid plains, there are no possibilities for colonies.”(Paul Virilio)²¹⁷

In his *Bunker Archaeology*, Virilio depicts the low profile concrete monsters that lurk sunken into the beaches of Western France. Built by the Nazi's during WW2 to protect the Western Front of Fortress Europe, the network of embattlements testifies to the hydrophobia of fascism discussed in the previous section. As Virilio astutely notes, a reterritorializing sense of home land, an arborescence of solid roots implanted in the soil is intrinsic to Nazism and conjoins with an impoverished maritime strategy as Hitler Reich attracted the whole of Europe into its abysmal black hole of collective suicide. Virilio points out that according to “Nazi doctrine, strangely enough, there is only one element, the lithosphere, the earth, blood. Despite the war in the air and under the sea, the offensive of the first space weapons, the atmosphere and the hydrosphere remain foreign to Hitlerian ideology. And the

²¹⁶ BA: 30.

²¹⁷ BA: 29.

feeling of being limited to the earth translates directly into the sentiment of vital space, the *Lebensraum*.”(BA:30)

Strategically landlocked into continental deployments, the German war machine was swept aside by innovations in weaponry which turned the most solid matter at least to viscous consistency. “The possibilities of weapons had become so great that the mineral element became part of the fluidity of fluid; with the exception of rock, all the earth is a part of the movement of the ocean, a mutation of physical territory, in fact the first type of ‘disintegration’ before the arrival of clear arms.”(BA: 38) As smooth space encroached in multi-dimensional invasions, Fortress Europe as a striatory system was flooded by the components of a war machine sliding in from the hydrosphere, the atmosphere and decrypting activities cutting through the electromagnetic spectrum. Virilio evokes the despair of a defeated siege mentality, of a territorial poliorcetics; “The orientation facing the ocean, facing its void, the mythic character of this watchman’s wake before the immensity of the oceanic horizon were not distinct from the anguished waiting of populations for the arrival of bomber squadrons in the darkness of the sky at night. From then on, there was no more protective expanse or distance, all territory was totally accessible, everything was immediately exposed to the gaze and to destruction. This marked the disappearance of the battle

ground and of peripheral combat; the Fortress Europe was three dimensional. . . "(BA: 40)

For Deleuze & Guattari, as was implicitly noted in Sector 2, the open sea is the archetype of smooth space and "was the first to encounter the demands of increasingly strict striation. The problem did not arise in proximity to land. On the contrary, the striation of the sea was a result of navigation on the open water."(ATP: 479)²¹⁸

In its gridding and escape, the oceanic epitomises the most important properties of fluid dynamics and smooth space, i.e. the swerve as angular momentum at the onset of vortical liquidity, line of deviation or line of flight as seepage or escape velocity from laminated organisation of striated space. Deleuze & Guattari write how "in the aftermath of striation, the sea reimparts a kind of smooth space occupied first by the 'fleet in being', then by the

²¹⁸ Deleuze & Guattari refer to a geographical longitude and latitude, one which has arisen out of the possibility, pragmatics and striation of global navigation and orientation. ". . . before longitude lines had been plotted, a very late development, there existed a complex and empirical nomadic system of navigation based on the wind and noise, the colours and sounds of the seas; then came a directional, preastronomical or already astronomical system of navigation employing only latitude, in which there was no possibility of 'taking one's bearings,' and which had only portmanteaus lacking 'translatable generalisation' instead of true maps; finally, improvements upon this primitive astronomical navigation were made under very special conditions of the latitudes of the Indian Ocean, then of the Elliptical circuits of the Atlantic (straight and curved spaces). It is as if the sea were not only the archetype of all smooth spaces but the first to undergo a gradual striation in one place then another, on this side then that. The commercial cities participated in this situation, and were often innovators; but only the States were capable of carrying it to completion, of raising it to the global level of a 'politics of science'. A dimensionality that subordinated directionality or superimposed itself upon it, became increasingly

perpetual motion of the strategic submarine, which outflanks all gridding and invents a neonomadism in the service of a war machine still more disturbing than the State, which reconstitute it at the limit of their striations. The sea, then the air and the stratosphere, become smooth spaces again, but in the strangest of reversals, it is for the purpose; of controlling striated space more completely. The smooth always possesses a greater power of deterritorialisation than the striated.”(ATP: 479) In the service of a global war machine, smooth space, as we saw in Sector 4 in relation to cyberspace, is taken over by a power which fluidifies, becomes mobile and nomadic, roaming in search of the imperceptible, the unspecified enemy whose ‘emergency’, whose insertion of information into an already overloaded co-ordinate system, constitutes a fatal threat.

5.2.2 Fluid mechanics: woman and the war Machine

“This domain is an island, enclosed by nature itself within unalterable limits. It is the land of truth- enchanting name! - surrounded by a wide and stormy ocean, the native home of illusion, where many a fog bank and many a swiftly melting iceberg give the deceptive appearance of farther shores, deluding the adventurous seafarer anew with empty hopes, and engaging him in enterprises which he can never abandon and yet is unable to carry to completion.”[Immanuel Kant]²¹⁹

entrenched.”(ATP: 479) See also D. Sobel, *Longitude*, London: Fourth Estate on the relation between cartography and time.

²¹⁹ III 267-8.

This tactics of insurgency and of turbulence which we have been outlining is a mode of fluid dynamics not just conveyed by Deleuze & Guattari in the conception of the nomad war machine but also in the mode of fluid feminism which characterises the work of Sadie Plant and Luce Irigaray²²⁰. Providing a positivization of the 'oceanic', i.e. that which Theweleit brilliantly describes as the central dread of fascist masculinity, the aspects of Plant's and Irigaray's work which will be focused on here, do to male desire what the nomad war machine does to the State-form in *A Thousand Plateaus*. While nomadism is primarily a way of life, it is, as a higher level function, an implicit critique of the State and a perpetual engine of its erosion. The argument to be developed here is that Sadie Plant and Luce Irigaray, through a fluid mechanics, engage a parallel operation on the body fortressing of male desire, and most keenly provide the basis for understanding the counter-fascist speeds and flows so reviled by the Freikorps. And Plant and Irigaray's work will be seen to provide the general orientation to

²²⁰ In a recent article by Elana Gomei entitled 'Hard and wet: Luce Irigaray and the fascist body' (Textual Practice 12(2), 1998, 199-223) the relation between 'fluidity' in Irigaray's work and Theweleit's fascist men is discussed in a totally divergent manner from the present examination. Gomei treats 'fluidity' completely metaphorically, and uncritically. Correctly Gomei points out that Irigaray's fluid body is the fascist body turned inside out but suggests that this gives Irigaray a complicity with fascism and acts to essentialize a feminist hydraulic utopia. It is by connecting Irigaray into Plant and Deleuze & Guattari's work that this entrapment of feminism into the essentialism vs. constructionism debate is avoided. Gomei does not fully explore the extent to which Irigaray's fluid mechanics maps onto a flow chart of insurgency as applicable to gender war as any other stratum. Hence Gomei conclusions are glib and completely miss the point.

the “ethics of speed”, the discussion of which will conclude this thesis.

In her text *Zeros & Ones*, Sadie Plant conjoins the fluid dynamics of Irigaray, the turbulence of Deleuze & Guattari’s nomadism and Sun Tzu’s war hydraulics into an liquid cartography of smooth space, cyberspace and information warfare. This conceptual patchwork provides a powerful contrast and critique when allowed to seep over the discussion of fascist masculinity in the previous sector.

The preamble to Plant’s book ends with a quotation from Sun Tzu; “Subtly, subtly, they become invisible; wondrously, wondrously, they become soundless - they are thus able to be their enemies’ Fates.” The extended discussions of liquid intelligence and woman pervade the book like an extended revelation of the ‘end of man’ as more than just a linguistic peculiarity of postmodernity, but rather a biotechnical tidal wave rolling in from the future. Plant’s analysis of turbulence corresponds most tightly with that of Irigaray who writes in her essay, ‘On the Mechanics of Fluids’ that “it is already getting around - at what rate? In what contexts? In spite of what resistances? - that women diffuse themselves according to modalities scarcely compatible with the framework of the ruling symbolics. Which doesn’t happen without causing some turbulence, we might even say whirlwinds, that ought to be reconfined within

solid walls of principle, to keep them from spreading to infinity. . .a confusion of boundaries that it is important to restore to the proper order.”(FM: 106)

For Plant, fluid dynamics maps onto a guerrilla tactics convergent with that outlined in Sector 2.3 and emerges out of Sun Tzu’s *war hydraulics*. Quoting Mary Montagu, Plant forges the connection between woman and the war machine; “The military art has no mystery in it beyond which Women can not attain to. . .A woman is as capable as a man of making herself by means of a map, acquainted with good and bad ways, the dangerous and safe passes, or the proper situation for encampment. And what should hinder her from making herself mistress of all the stratagems of war of charging, retreating, surprising, laying ambushes, counterfeiting marches, feigning fights, giving false attacks, supporting real ones. . .”(quoted in ZO:138) Plant here points to a fluid mode of war, “not the Western way of confrontation, stratified strategies, muscular strength, testosterone energy, big guns, and blunted instruments, but Sun Tzu’s art of war; tactical engagements, lightening speeds, the ways of the guerrillas.”(ZO 138)

Building on the woman/war machine nexus developed in Monique Wittig’s text, *les Guerilleres*, in this strategic mode, “the objective

is not to gain ground but to destroy the greatest number of the enemy to annihilate his armament to compel him to move blindly never to grant him the initiative in engagements, to harass him without pause. Using such tactics, to put an enemy out of action without killing him. . .is the best way to sow disarray." (quoted in ZO: 138) In a cluster of sections entitled *wetware*, *dryware* and *silicon*, Plant reaffirms the dominance of the 'oceanic' over terrestrial civilization, pointing to the dynamic zone of transition where land becomes sea and vice versa and the fractal coastline which intricately rides the boundary.²²¹

Plant cites how in Irigaray's *Marine Lover*, where she ambivalently enters into a game with Nietzsche, man longs to "think of the sea from afar, to eye her from a distance, to use her to fashion his higher reveries, to weave his dreams of her, and spread his sails while remaining safe in port."²²² In her essay 'On the Mechanics of Fluids', Luce Irigaray engages in information warfare against the 'huMan' security system whose primary modus operandi in postmodernity with increased computational power, as I have argued, is reciprocal orientations of *turbulence simulation and programmed catastrophe*. Irigaray allies herself with a fluid nature which perpetually threatens to 'jam' the working of science's

²²¹ Here Plant is drawing on recent work in biology such as *Hypersea: Life on Land* (McMenamin, & McMenamin, NY: Columbia University Press 1994) in which an oceanic plane of consistency is mapped out between the sea and its creatures and terrestrial creatures as water carriers.

phallogo-centric theoretical machinery. Irigaray's argument can, for the purposes of this analysis be divided into 2 moves. Firstly she launches a critique of the alliance of scientific rationality with a theory of solids and secondly a critique of this theory of solids as masculine, thereby pointing to (in a convergent manner with Deleuze & Guattari's analysis of nomadism and turbulence) a productive conjunction between woman and fluid mechanics. Making clear the complicity of Man and the State, and the alignment of woman and the war machine, Irigaray offers a 'theory' of fluids which flees "a complicity of long standing between rationality and a mechanics of solids" and closed hierarchical classification. This elucidation of Irigaray's essay constitutes the most fatal attack on the flow chart of fascism and male desire outlined in sector 5.1. Moreover, it promotes an interesting correspondence, as just mentioned, between woman and the war machine in hacking the theories of the State-Man complex.

Woman, like the turbulence of the war machine, have served as a "projective map for the purpose of guaranteeing the totality of the system- the excess factor of its 'greater than all' functioning as "geometric prop for evaluating the 'all' of the extension of each of its 'concepts' including those that are still undetermined."(FM: 108) Moreover, "Solid mechanics and rationality have maintained a

²²² Irigaray, *Marine Lover* 51.

relationship of very long standing, one against which fluids have never stopped arguing.”(FM: 113)

Irigaray complains about the inadequacy of sciences treatment of fluids, a gulf which leads to physics constructing an illusory reality around an idealist model of solidity. She describes how “what is in excess with respect to form. . .is necessarily rejected as beneath or beyond the system currently in force. . .”(FM: 110-111) It is not just a matter of science better representing viscous nature; Irigaray alerts us to this when she writes that “*physical reality* that continues to resist adequate symbolisation and/or that signifies the powerlessness of logic to incorporate in its writing all the characteristic features of nature. . .”(FM: 106-107) The inadequacy of pure logic to capture fluidity maps for Irigaray onto the dynamics of the “rational subject” unwittingly casting normative assertions on a world which always escapes his attempts to understand and control. So Irigaray asks, what linguistic composition or consistency could begin to map the mechanics of fluids without striation, thereby cracking open a “complicity of long standing between rationality and a mechanics of solids. . .”(FM: 107)

It is this gap which a ‘watercourse’ of escape testifies to, that Irigaray complains is filled in scientific rationality by a “symbol of universality”, a transcendent ‘plug’ functioning to create the illusion

of totality on an incomplete multiplicity. As she argues, "the 'all'- of x but also of the system - has already prescribed the "not-all" of each particular relation established, and that 'all' is such only by a definition of extension that cannot get along without projection onto a given space-map whose between(s) will be given their value(s) on the basis of punctual frames of reference"(FM:108)

This striated space must be finite or else science would not be able to determine order and value. The 'all', (God) stands in for the 'not-all' of rationality(feminine pleasure). So we move onto the second stage of Irigaray's argument which points to the complicity between a theory of solids and the capture of feminine pleasure. As liquid infrastructure between the points of solid geometrical reality, "awoman serves (only) as a *projective map* for the purpose of guaranteeing the totality of the system - the excess factor of its "greater than 'all'; she serves as a geometric prop for evaluating the 'all' of the extension of each of its 'concepts' including those that are still undetermined, serves a fixed and congealed *intervals* between their definition in 'language', and as the possibility of establishing individual relationships among these concepts."(FM: 108)

Irigaray's general attack therefore suggests that in the same way that science has inadequately understood the properties of real fluids, the male subject of science and his libidinally invested

discursive frameworks of identity stratify the fluid realities of female pleasure. Ideal fluids without reference to concrete dynamics of friction, pressure and perturbation leads us only to the dead end of mathematical 'theo-logic'. This theory of ideal fluids must make do with laminar predictable flows and co-ordinatable points in this flow, at the expense of real fluids and thereby continues to give precedence to solids.

Both Sadie Plant and Luce Irigaray contribute therefore to the formulation of a *war hydraulics*, to a fluid mode of warfare tuned to surfing the turbulence of cybernetic society submerged in an ocean of information. Despite some tensions, which for the present purposes it is not necessary to detail, it could be said that Plant, Irigaray and Deleuze & Guattari all converge in this imperative to engineer an active cartography, an orientation to warfare which takes as its secondary protocol, the erosion of postmodern capture complexes.

With this in mind, we can now conclude this sector with a discussion of abstract cartography as informed by fluid mechanics, turbulence theory, Chinese martial arts and Deleuze & Guattari's deployment of Spinoza as a materialist cartographer.

5.3 The Tao of Turbulence:

machinic postmodernism as an ethics of speed

In this final sector, the insights of sections 5.1. and 5.2, i.e. the critique of the nexus of fascist speed and the solid dynamics of masculinity, will be formulated into what will be suggested constitutes *machinic postmodernisms'* attack on nihilism. This attack on what Guattari terms the "postmodern impasse" takes the shape of an "ethics of speed" which runs alongside the *active cartography* delineated in Sector 1 and is developed throughout the thesis as a *nomad fluid mechanics*. This ethics, following Deleuze's vector through Spinoza's practical philosophy will be differentiated from the morality which according to Nietzsche's Genealogy has fallen into degradation, revealing itself as the habitual illusion of Occidental theo-culture, as a technique of micropolitical stratification and the irrigation/delimitation of the liquid potential of 'what a body can do'.

Sector 5 has implicitly been concerned with the longitude and latitude of bodies, the cartographic components outlined in Sector 1. In particular, 5.1 involved an extended discussion of bodies swept away by fascist speeds, with the corresponding delimitation of corporeal potential as libidinal circuits were hardwired into a male aggression built on top of a foundational dread of liquid reality and its correspondences with woman, communism, judiasm

etc. This body fortressing simultaneously provides a protective shell from the outside and channels all interaction with exteriority into the rush of explosive projectile violence. It was seen that this seemed to correspond closely with Virilio's critique of speed as fascist in Sector 1. Pushing further the argument made throughout this thesis that Deleuze & Guattari's conception of speed in *A Thousand Plateaus* makes visible counter-fascist speeds which render Virilio's wholesale rejection unsatisfactory, in 5.2 an attempt was made to expose aspects of such speeds and affective potentials through elucidation of the 'fluid mechanical' critique of the restricted velocity repertoire of the dominant masculine bio-technics. Convergent with Plant and Irigaray's fluid feminism, Deleuze & Guattari's analysis can be seen to move beyond at least the Virilio of the 1970s and 80s which in this period seems transfixed by a wholesale depiction of the fascist character of speed. Sidestepping Baudrillard's nihilism and Virilio's Catholic mourning, *machinic postmodernism* as an *ethics of speed* plugs cartography into a pragmatics of bio-technical interaction and destratification. Not attempting to rely on an Orientalism or renewed archaism, this ethics of speed situated in contemporary global cybernetic culture may simply be termed the 'tao of turbulence.'

5.3.1 Postmodern Impasses and dams

For Felix Guattari, the 'ethical abdication' of the postmodern impasse is a reaction to a condition whereby "we are condemned to remain helpless before the rise of the new order of cruelty and cynicism that is about to overwhelm the planet, an order that seems determined, it would seem, to persist? It is to this regrettable conclusion that a number of intellectuals and artists, especially those influenced by postmodernist thought, have arrived."²²³ Criticising identity politics as potential microfascisms clipping the waves of deterritorialization and schizophrenization escaping from late capitalism, Guattari shows distaste at the submissive posturing of the likes of Lyotard and Baudrillard. As Guattari writes: "As the deterritorializing revolutions tied to development of science, technology, and the arts, sweep aside everything before them, a compulsion toward a subjective reterritorialization also emerges. And this antagonism is heightened even more with the phenomenal growth of communications and computer fields, to the point where the latter concentrate their deterritorializing effects on such human faculties as memory perception, understanding, imagination, etc."²²⁴

As Guattari's critique develops, the implicit critique of textualism in post-structuralism by *machinic postmodernism* becomes clearer,

²²³ 109 in 'The Postmodern Impasse', The Guattari Reader.

revealing an underlying rationale of idealist discourse obsessions; “where does the idea that the socius is reducible to the facts of language, and that these facts are in turn reducible to binarizable and “digitalizable” signifying chain, come from?. . .[it] is directly in keeping with the modernist tradition of structuralism, whose influence on the human sciences appears to have been a carry over from the worst aspects of Anglo-Saxon systemisation. The secret link that binds these various doctrines, I believe, stems from a subterranean relationship - marked by reductionist conceptions, and conveyed immediately after the war by information theory and new cybernetic research.”²²⁵ *Machinic postmodernism* therefore is *an information war against the control cybernetics of programmed catastrophe* and the logic of *turbulence simulation*. In its materialism it attempts to ‘depose the signifier from its transcendent position.’

5.3.2 Escape Velocity- and ethics of speed

Against these postmodern impasses, an ethics of speed can be proposed which mediates an over rapid acceleration away from the strata of the human (so as to ward off the black holes of suicide and fascism) while engaging a rigorous engineering programme to unpick the stratification of corporeal potential. The analysis which gives Deleuze & Guattari’s conception of speed more complexity than Virilio’s wholesale depiction of it as fascist comes, I shall

²²⁴ 110 in *ibid.*

argue, from their deployment of Spinoza. As we noted in Sector 1, cartography, run through Spinoza, consists of the mapping of bodies in terms of their *longitude and latitude*, where longitude relates to the *composition of the body in terms of its relations of speed and slowness*, and latitude concerns that *bodies affective potential or power*. Spinoza's *Ethics* as it is appropriated by Deleuze & Guattari constitutes therefore an 'ethics' of speed. It is this ethics of speed which *in A Thousand Plateaus* serves to maintain a line of flight, warding off its paranoid reversion into a suicidal line of destruction; or to put it differently, the ethics of speed consists of a pragmatics, which keeps things liquid, holding a nomadic speed without getting sucked into a fascist dynamic of body fortressing and violent libidinal discharge. It is speed on a *rhythmic plateau of continuous variation and cyclic discontinuity*. This ethics is a survival mode for a global cybernetic culture poised far from equilibrium. In short what is being referred to as an ethics of speed could be simply termed the *tao of turbulence*.

In his text on Spinoza aptly subtitled *Practical Philosophy*, Deleuze forges a connection between Nietzsche's critique of moral culture with Spinoza's *Ethics*, pointing to the main lines of flight which make for a crucial and radical distinction between what is meant by an 'ethics' as opposed to a 'moral' system. These 3 deviations

²²⁵ 111 in *ibid.*

consist of *materialism*, *immoralism* and *atheism*, comprising respectively of denunciations of *transcendent consciousness*, of *moral values* and of the *reactive or sad passions*.

What Deleuze & Guattari take from Spinoza's Ethics is a sense of radical immanence. Since for Spinoza there is only one substance, his thought offers a subterranean escape route, through parallelism, from the legacy of a Cartesian dualism which has subordinated matter to thought.

Spinoza basic level of cartography dissolves the anthropomorphic into "an investigation into lines, planes or bodies"²²⁶ on a single plane called 'Substance', 'Nature' or 'God'. Deleuze & Guattari term this univocal topological surface the 'plane of consistency', the 'machinic phylum' and the 'body without organs'. For Deleuze cartography unravels these lines within a tangled milieu, disconnecting wires here, plugging them in here, forging new conjunctions and disjunctions, tearing up maps and pasting them together in way which open up new routes, experimentally burrowing into uncharted territories. The radical imminence of this cartography places the cartographer 'on the line' not above it in some kind of panoptic viewing tower of subjectivity. Rather the cartographer 'gets wet', is immersed in the flow, is only

²²⁶ 103 in B. Spinoza (1992) *The Ethics*, London: Hackett.

differentiable from flow by a relation of speed and slowness, a degree of viscosity, a chemical composition. *Machinic postmodernism* provide the tools for a planetary cartography of violence on the body/bodies of the earth. A 'body' can take on a variety of meanings, it "can be anything; It can be an animal, a body of sounds, a mind or an idea; it can be a linguistic corpus, a social body, a collectivity."(SPP: 128) In this thesis the planet has been conceptualized as such a body. A body in this sense correlates to what Deleuze & Guattari term an 'assemblage' and can be defined in the Spinozist sense as an agglomeration of vectors of speed and slowness, a dense point in a complex of lines. In the fluid landscape of the 'plane of consistency' or 'nature', a body stands only as a transitory figure of relative solidification. The laboured issues of moral and political philosophy, tied to a logic of judgement and legislation, the logic of the State, becomes for machinic postmodernism, fundamentally questions of practical fluid mechanics or an 'ethics of speed'. The key questions become how does a collective body maintains a plateau of consistency without facing on the one hand capture, reterritorialization and stratification into hierarchical irrigation systems or on the other, plummet into a fascist black hole of escalations of violence, kamikaze nose dives and suicidal high velocity destratification. Between these poles of order and chaos is where the tao of turbulence works, encouraging a collective consistency 'far from

equilibrium', 'liquidity', optimal liquidity, flexibility, dynamism and experimentation. The tao of turbulence consists of sustaining the volatility of a collective population, tuning the group to intensity production as opposed to the dampening systems and everyday nihilism of postmodern culture. Such fluidity is required of populations not just due to the escalating turbulence and rate of change in late capitalist culture, but specifically because of irreversible species mutations relating to machinic intelligence and cyborgian dehumanization.

Machinic postmodernism is in this sense a neo-futurism, celebrating speed not in the same way as Marinetti which as Virilio correctly pinpoints, contains heavy doses of speed fascism, but rather *intense speed*, which has no necessary relation to that which we consider *fast in extensivity*. To repeat, Deleuze & Guattari point out that "a movement may be very fast, but that does not give it speed; a speed may be very slow, or even immobile, yet it is still speed. Movement is extensive; speed is intensive. Movement designates the relative character of a body considered as 'one', and which goes from point to point; speed, on the contrary, constitutes the absolute character of a body whose irreducible part (atoms) occupy or fill a smooth space in the manner of a vortex, with the possibility of springing up at any point."(ATP: 381) The *tao of turbulence* consists of speed in this sense as an aesthetic of

intensification, multi-dimensional rhythm and cyclic discontinuity. In this it constitutes a tactics of insurgency against the dampening systems of postmodern nihilism.

"You don't reach the BwO, and its plane of consistency, by wildly destratifying. . .If you free it with too violent an action, if you blow apart the strata without taking precautions, then instead of drawing the plane you will be killed, plunged into a black hole, or even dragged towards catastrophe. Staying stratified - organized, signified, subjected - is not the worst that can happen; the worst that can happen is if you throw the strata into demented or suicidal collapse, which brings them back down on us heavier than ever. This is how it should be done: lodge yourself on a stratum, experiment with the opportunities it offers, find an advantageous place on it, find potential movements of deterritorialization, possible lines of flight, experience them, produce flow conjunctions here and there, try out continuums of intensities segment by segment, have a small plot of new land at all times. . . "(ATP: 160-161)

Conclusion: refolding the map

This cartography of postmodern violence has attempted to map a dynamic landscape, which, it has been argued, is overridden by the protocols and technological discharge of a military cybernetics complex. The main argument was that this landscape is intrinsically unstable, 'far from equilibrium' and can best be understood through an exploration of the concept of *turbulence* as developed in computer modelling, chaos theory and the non-linear physics of the later half of the twentieth century.

This argument can be maintained for two reasons. Firstly, it zooms straight to the heart of cybernetic control societies, to the attempt, through digitalisation to control, modulate and simulate the uncontrollable, the catastrophic, the accidental and the turbulent. Therefore the thesis has referred to the fundamental operation of control in postmodernity as *turbulence simulation* or *programmed catastrophe*. Perhaps the more fundamental point however, is that control is always driven by *base turbulence*. If in cybernetic society, control appears to near perfection, with digitalisation constituting the most minute operations of micro-stratification right down at the level of code, escape velocities proliferate, mutating military technology in recombinant assemblages which demand tuned conceptual tool kits in order to open up their potential interactivity. The most important thinkers for this task, it is

contended here, are Gilles Deleuze & Felix Guattari whose *A Thousand Plateaus* in particular is seen to steer Michel Foucault & Paul Virilio's work away from the 'postmodern impasse' of nihilism into a 'machinic postmodernism' which is guided by an 'ethics of speed' convergent with Luce Irigaray's 'fluid mechanics', the Chinese martial thought of Sun Tzu and Spinoza's *Ethics*.

Each sector of the thesis featured a *zoom-in* to a conceptual milieu opened up in *A Thousand Plateaus*. The main feature of **Sector 1** is Deleuze & Guattari's concept of **cartography** itself. Sector 1 in its coverage of this concept and its application to a systemic analysis of tension and flux in the world system in postmodernity, cast its own perspective over the other sectors, defining the historical period under study as a series of compressive phases triggered by the World Wars and accelerating through the Cold War into cybernetic culture of bio-technical convergence. On the surface of the earth, the history of war is mapped in relation the hydrosphere, the desert, the jungle, the atmosphere, the stratosphere and in postmodernity, cyberspace as various manifestations of what Deleuze & Guattari refer to as smooth space. This illustration is then extrapolated into the dissolution of the 'problem of violence' into a material discussion of turbulence.

Sector 2 tracked flows across the surface of this system, zooming in to provide a molecular analytic cartography of social systems in terms of **turbulence**. The relation between the State and warfare is given a microphysical treatment. Differentiations are made between the fluid dynamics of modes of war in terms of system speeds and consistencies in line with the cartographic criteria set out in Sector 1 and the dynamic criteria of turbulence. In order to access the liquid undercurrents which throw up Deleuze & Guattari's physics of the war machine, the science of positive chaos and turbulence was coded into the cartography of violence. In this discussion of order and chaos, laminar and turbulent flow, a fluid dynamics of war were developed. This involved an elucidation of Deleuze & Guattari's concept of the *machinic phylum*, its relation to their other concepts such as the *plane of consistency* (converging with Spinozan substance/ god/ nature which served as a catalyst in **Sector 1** to *machinic postmodernism* as a mapping technology). These conceptual tools, it was argued, produce a cartography which cuts through the philosophical distinction between nature and society and produce a diagram of self-similar processes across scale, diagonalizing the local and the global into the *complex*. A terminological equipment emerged from the above operations, producing a discourse of non-linear phenomenon to map postmodern violence, of cyclones, vortices, storms and floods taken

literally as the abstract dynamics of rioting, insurgency and infiltration in social systems treated as molecular populations.

Sector 2 concluded with an examination of the philosophical trajectory of strategic intelligence, particularly tracing the roots of the indirect warfare of the cybernetic period to ancient Chinese martial thought and conceptions of the cosmos. In this way, an attempt was launched (to be picked up again in the **Sector 5**) to connect Deleuze & Guattari interest in Spinoza's ethics to the immanent ethics of practical cartography which allows *machinic postmodernism's ethics of speed* to be framed as a *Tao of Taoism*, as a pragmatics of anti-fascist speed.

Sector 3 arranged the historical background of postmodern violence in terms of Deleuze & Guattari's conception of a **war continuum** is explicated through a social topology of co-existent population consistencies. The particular approach to social involution was in terms of the *co-stratification of the planet* through archaic Despotic state formations and modern European ones and actualized the abstract diagram of tribal warfare developed in **Sector 2**. This involved the outline of Karl Wittfogel's flow chart of the Despotism State form and Pierre Clastre's ethnography of band warfare. From this, and in terms convergent with Deleuze & Guattari and Manuel De Landa, a social topology or a non-linear

history emerges which attacks the Occident's racist myths of civilization, progress and historical equilibrium. In other words, the *perpetual peace* of the Cold War, of nuclear deterrence is given an energetic account, revealing the base escalation in the military industrial complex which produces postmodernity as planetary cybernetic culture. Moreover, a social topology provides an account of the co-existence of population consistencies across history, and therefore opens space for a non-linear understanding of postmodern violence as a correlate of neo-tribalism plummeting into the vortex of a techno-medievalism tracked in **Sector 4**.

Sector 4 examined postmodern violence through the concept of **programmed catastrophe** surveying contemporary developments in cybernetic culture, from globally mediated riots, terrorism and electronic warfare. The developments of non-linear modelling drawn from in **Sector 2**, were in **Sector 4** critically examined in relation to their adoption for the social hazard mapping of postmodernity. The concept of turbulence simulation developed in Sector 2 is extended to emphasise the effects of feedback in social cybernetics through Deleuze & Guattari's and Virilio's notion of **programmed catastrophe**. Here, the conceptual tools developed were applied to an examination of the postmodern state and its relation to accidents, emergency, risk, simulation and the 'unspecified enemy'. This involved a discussion of Baudrillard and

Virilio's conceptions of terrorism through the further elucidation of Deleuze & Guattari's notions of the Global War Machine and Mike Davis's postmodern urbanism through which he depicts the turbulence of social implosion as immersed in an 'ecology of fear'. Deleuze & Guattari point in *A Thousand Plateaus* to dynamics which hold a nomadic potential which they demand be distinguished as differential velocities in their complexification of Virilio's politicisation of speed. In **Sector 4** the global war machine, through Virilio & Baudrillard, is mapped through a trajectory of *flight simulation* from the US conflict in Vietnam (for Jameson, the first postmodern war) and the Gulf War, illustrating the transition of information processing systems in the military industrial complex. The speeds of urban guerrilla warfare were run through Virilio & Baudrillard's analysis of terrorism and global media and information systems. **Sector 4** concludes with a critique of the logic of simulation at work in cybernetic control society exposed by Virilio & Baudrillard, the concept of *turbulence* in **programmed catastrophe** was applied to provide a cartography of the LA riots of 1992. Here the notion of *overexposure* was introduced as a way of illustrating the phase shift from street turbulence as primary site of insurgency in the postmodern period of hyper-urbanism characterized by *endo-colonisation* in the *internal south*, i.e. the implosive core of the world system.

In **Sector 5** by means of conclusion, it was argued that Deleuze & Guattari's *machinic postmodernism* in its critical examination of Paul Virilio's equation of speed with fascism, provides an *anti-fascist neo-futurism*, an *ethics of speed* here termed the **Tao of Turbulence** as the modus operandi for insurgency in the virtual reality of the military-cybernetic complex. Firstly Virilio's equation was traced to his analysis of Marinetti's futurism as an aesthetics of violence. This was then connected to Theweleit's analysis of fascist masculinity and its orientation to speed, explosion and generalised dread of flow which I depicted in line with the fluid dynamics of this cartography as a *hydrophobia*. Treating populations as molecular assemblages, it was seen how this hydrophobia forces a reassessment of the escalation of mass fascism such as the micropolitical cartography initiated by Guattari and further developed in *A Thousand Plateaus*.

To then get at what machinic postmodernism's ethics of speed might look like, the notion of the oceanic is followed, untangling a cultural complex caught in a capture complex of misogyny. It was argued that the materialist feminism of Irigaray's *fluid mechanics* and Sadie Plant's *neo-futurism* positivises the fluid to provide an insurgent critique of fascist speed in the same way as Deleuze & Guattari's conception of the nomad war machine is tuned to the destruction of the State-Form. Together they comprise, it is

argued, a machinic postmodernism as pragmatic critique of the Occidental State-Man complex and together positively comprise an *ethics* (in the sense of Deleuze's amoral remix of Spinoza) of *speed*, a *tao of turbulence* in the sense in which they converge with the *war hydraulics* of Chinese marital arts as introduced in **Sector 2**.

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