## Notes on The Cybernetic Hypothesis<sup>1</sup>

Communism is for us not a state of affairs which is to be established, an ideal to which reality [will] have to adjust itself. We call communism the real movement which abolishes the present state of things. The conditions of this movement result from the premises now in existence. Marx, The German Ideology (1845)<sup>2</sup>

In other words: the situation is excellent. Julian Coupat (2009)<sup>3</sup>

Tiqqun was a French journal that published two issues in 1999<sup>4</sup> and 2001<sup>5</sup>. The authors wrote as an editorial collective of seven people in the first edition and went uncredited in the second edition. More recently, one member of the original collective, Fulvia Carnevale, has said that

"I would like to say that Tiqqun is not an author, first of all. Tiqqun was a space for experimentation. It was an attempt at bridging the gap between theory and a number of practices and certain ways of "being together". It was something that existed for a certain time and that then stopped because the people working at it weren't happy with the relation between theory and practice and that certain people had decided that Tiqqun 3 would be a movie."<sup>6</sup>

This space for experimentation amounted to to 450 pages over three years, producing several substantial texts such as *Bloom Theory*,<sup>7</sup> *Thesis on the Terrible Community*,<sup>8</sup> *Raw Materials for a Theory of the Young Girl*,<sup>9</sup> *Thesis on the Imaginary Party*,<sup>10</sup> *Introduction to Civil War*,<sup>11</sup> *How is it to be done?*,<sup>12</sup> *This is Not a Programme*,<sup>13</sup> and *The Cybernetic Hypothesis*.<sup>14</sup>

Published in Tiqqun 2, *The Cybernetic Hypothesis* is forty-three pages long and divided into eleven sections. Each section begins with one or two quotes which are then critiqued in order to further the hypothesis. The author(s) write in the first person singular. They quote from a range of sources, naming the authors and sometimes their texts, but do not offer precise references.

What follows are my notes on the text. I simply summarise each section in order to better absorb and understand it. At the end of each section summary, I provide a further, more concise concluding summary.

<sup>1</sup> Originally published in French in Tiqqun II (2001). http://www.archive.org/details/Tiqqun2 Translated into English 2010 http://cybernet.jottit.com/

<sup>2</sup> http://www.marxists.org/archive/marx/works/1845/german-ideology/ch01a.htm

<sup>3</sup> http://www.notbored.org/julien-coupat.html

<sup>4</sup> http://www.archive.org/details/Tiqqun1

<sup>5</sup> http://www.archive.org/details/Tiqqun2

<sup>6</sup> See the interview with Agamben. http://www.dailymotion.com/video/x929gp A video of the Q&A which followed his talk has since been removed but an English transcript of both the talk and Q&A can be found here: http://anarchistwithoutcontent.wordpress.com/2010/04/18/tiqqun-apocrypha-repost/

<sup>7</sup> http://bloom.jottit.com/

<sup>8</sup> http://terriblecommunity.jottit.com/

<sup>9</sup> http://younggirl.jottit.com/

<sup>10</sup> http://chicagobranch.wordpress.com/2009/12/05/theses-on-the-imaginary-party-updated/

<sup>11</sup> Semiotext(e) 2010 http://mitpress.mit.edu/catalog/item/default.asp?ttype=2&tid=12085

<sup>12</sup> http://zinelibrary.info/how-it-be-done-zine-tiqqun

<sup>13</sup> http://chicagobranch.wordpress.com/2010/01/02/this-is-not-a-program/

<sup>14</sup> http://cybernet.jottit.com/

The **first section** situates Cybernetics historically. They attack it as a 'programme' based on organisation, transparency, intelligence and control. Cybernetics as manifest in the Internet, ICT and the 'new economy', has definitively supplanted the *liberal hypothesis*. Cybernetics includes liberalism and at the same time transcends it. The critique of liberalism is no longer worth the effort because liberalism is obsolete, nothing more than a 'residual justification' for the crimes of the 'new model', that is cybernetics.

They lament the lack of a critical response to the emergence of cybernetics as "a new technology of government, which federates and associates both discipline and bio-politics, police and advertising, its ancestors in the exercise of domination..."

That is to say, cybernetics is not, as we are supposed to believe, a separate sphere of the production of information and communication, a virtual space superimposed on the real world. No, it is, rather, an *autonomous world of apparatuses so blended with the capitalist project that it has become a political project*, a gigantic "abstract machine" made of binary machines run by the Empire, a new form of political sovereignty, which must be called *an abstract machine that has made itself into a global war machine*.

Drawing on Deleuze and Guattari, they hold that increased automation resulted in the automation of the war machine which, since the second world war, has extended its objectives to a materialised goal of world order. In blending with capitalism, the cybernetic hypothesis, like the liberal hypothesis, has become a political project and should no longer remain an object of *critique* by critical minds, but become the object of *conflict* and the authors' objective is that of defeat of cybernetics, the new model of capitalism.

Born out of crisis and conceived of as a biological, physical, social and programmable system, the survival of the cybernetic hypothesis is paramount. In its desire for order, certitude and totality, the cybernetic hypothesis has inspired a new governance mentality, "a relative of not only the totalitarian ideologies, but also of all the Holisms, mysticisms, and solidarities, like those of Durkheim, the functionalists, or the Marxists; it merely takes over from them." It is the "experimental protocol of Empire in formation", corroding the old institutions and social relations of liberalism and "transforming both the nature of capitalism and the possibilities of its contestation."

"The cybernetic gesture affirms itself in the negation of everything that escapes regulation, all the escape routes that existence might have in the interstices of the norms and apparatuses, all the behavioural fluctuations that do not follow, in fine, from natural laws. Insofar as it has come to produce its own truths, the cybernetic hypothesis is today the most consequential anti-humanism, which pushes to maintain the general order of things, all the while bragging that it has transcended the human."

The Cybernetic Hypothesis' techniques of governance are epitomised by 'management' (derived from the Greek *kybernētēs* which means to 'pilot'), that is, unlimited rationalisation that seeks to support and defend the State through an unlimited flow and capture of information. Social authority is derived not from sovereign power, but from a rational coordination of information and decisions. This is, in liberal terms, akin to Adam Smith's 'invisible hand', a communications system built on an ensemble of information capturing and handling devices that exist within proximity of every living community. This cybernetic system is the source and destination of all power, a closed feedback loop that is both a

paradigm and technique of government. An organ of power and a way of thinking. Differentiation is destined for integration as singular subjectivities contribute to the production of a collective totality that has as its goal, an objectively controlled stable society. In this way, the author(s) argue that:

"cybernetics is war against all that lives and all that is lasting. By studying the formation of the cybernetic hypothesis, I hereby propose a genealogy of imperial governance. I then counterpose other wisdom for the fight, which it erases daily, and by which it will be defeated."

In summary, section one provides historical references for the objectives of cybernetics and argues that as a political capitalist project it has supplanted liberalism as both a *paradigm* and *technique* of government that aims to dissolve human subjectivity into a rationalised and stable (i.e. *inoffensive*) totality through the automated capture of increasingly transparent flows of information and communication. The authors understand this subjugation of subjectivity as an offensive, anti-human act of war which must be counteracted.

**Section two** begins by highlighting the political meaning of the Internet which is a war machine designed by the military as a decentralised internal mobilisation tool, "a device which would preserve the command structure in case of a nuclear attack." The Internet was built to be a network that can automatically resume control over information when the majority of the communications links are severely depleted, allowing the surviving authorities to remain in communication with one-another and make decisions.

"The Internet is thus the result of a *nomadic transformation of military strategy*... As is the Internet, which derives from it, cybernetics is an *art of war* the objective of which is to save the head of the social body in case of catastrophe."

This section also introduces the argument that cybernetics was a response to "the metaphysical problem of creating order of disorder." The author(s) hold that during the period between the first and second world war, the sciences were "torn between neopositivist restoration and probabilist revolution", during which Cybernetics constructed a *Second Empire of Reason* where the idea of the Subject was absent. Instead, it brought together a variety of discourses aimed at mastering uncertainty. In doing so, the fundamental desire was for a restoration and maintenance of a single order.

They proceed to discuss how cybernetics was developed in the context of total war, led by "ordinary men mobilised by America during the Second World War." It is no surprise then that the history of its technologies has been aimed at predicting, monitoring and determining the position and behaviour of bodies. Uncertainty was expressed as an "information problem, within a temporal series where certain data is already known, and others not, and to *consider the object and the subject of knowledge as a whole*, as a 'system.'" In 1948, Norbert Weiner, the founder of cybernetics, referred to it as the doctrine of "control and communication in the animal and machine."<sup>15</sup> The author(s) state that:

"Cybernetics thus emerged as a simple, inoffensive theory of information, a theory for handling information with no precise origin, always potentially present in the environment around any situation. It claims that *the control of a system is obtained* 

<sup>15</sup> The English translation of *The Cybernetic Hypothesis* refers to this as the doctrine of "control and communication *between* animal and machine." (my emphasis) The title of Weiner's book is actually, *Cybernetics or Control and Communication in the Animal and the Machine*, (Hermann & Cie Editeurs, Paris, The Technology Press, Cambridge, Mass., John Wiley & Sons Inc., New York, 1948).

*by establishing an optimum degree of communication between the parties to it.* This objective calls above all for the continuous extortion of information – a process of the *separation* of beings from their qualities, of the production of differences."

The cycle of information representation, memory and communication is key to this section. In 1948, the same year that Weiner was defining Cybernetics, Claude Shannon was defining Information Theory and inventing the binary encoding of information. *The Cybernetic Hypothesis* argues there is a "separation of beings from their qualities, of the production of differences." In doing so, cybernetics continually exhorts information from us in an attempt to master uncertainty. To aid this, information is represented (encoded) and memorised in machines (i.e. computer software and hardware) and then communicated back at us as a form of commodity circulation, regulating the system.

"Cybernetics in the project of recreating the world within an infinite feedback loop involving these two moments: representation separating, communication connecting, the first bringing death, the second mimicking life."

Through this process, cybernetics turns a diverse population of living beings into machines, "to master, programme, and determine, mankind and life, society and its future" and turns machines into living beings through forms of imitation: Artificial Intelligence and networks, that is, robots and a "terrain of communication." In a further abstraction, cybernetics rationalised and reconstructed human social complexity through a new "*visual form of reasoning*", i.e. modelling, or "*total templating*." Theory and technology progress, each always certifying the other.

Between the 1950s and 1980s, the systems metaphor evolved towards the network metaphor. Systems that were once compared to the *nervous system*, became networks understood as the *neuronal network*.

"Cybernetics is the assimilation of the totality of the phenomena that exists into brain phenomena. By *posing the mind as the alpha and omega of the world*, cybernetics has guaranteed itself a place as the avant-garde of all avant-gardes, the one that they will now all forever be running after. It effectively implements, at the start, *the identity between life*, *thought*, *and language*."

The author(s) argue that this is radical Monism, "based on an analogy between notions of information and energy." The natural law of *entropy* (the degradation of energy as it circulates) can be found in the circulation of information and this is "the cybernetician's hell." Entropy can therefore explain "the decomposition of life, disequilibrium in economy, the dissolution of social bonds, decadence..." Cybernetics had found common ground by which to unify the natural and human sciences. Through endless restoration, cybernetics was advanced with the objective of fighting this entropy threatening humans, machines and societies and maintaining the integrity of the whole. It provides a "strongarm to capitalism" through experimentation in its laboratory of 'contemporary society.' It becomes a social experiment where individuality is negated by the notion of a

"plural individual, the unity of which determines and is determined by the distribution of roles and functions – all of within the framework of an 'organic composite' where one would be hard pressed to not see a biological model for the teleology of Capital." In summary, section two establishes cybernetics as the theoretical and technological outcome and continuation of a state of war, in which stability and control are its objectives. Developing with the emergence of post-war information and communication theory and corresponding innovation in computer software and hardware, intelligence is abstracted from the human population as generalised representations that are retained and communicated back to individuals in a commodified form. This feedback loop is understood as a 'system' and later as a naturalised 'network' which, drawing on the 19<sup>th</sup> century thermodynamic law of entropy, is at continual risk of degradation and must therefore be reinforced by the development of cybernetics itself.

**Section three** focuses on the use of information for regulation and control. It begins with two quotes from Heidegger on the use of cybernetics to plan and organise human labour and the function of mankind as a "factor of disturbance." However, Heidegger (1967) believed that science now "possesses" this field of human existence and rather than as a disturbing factor, understands man as "an active player."

The author(s) hold that the development of Socio-Cybernetics led to the reduction of dialectical thought to "processes of *circular causality* within what was considered a priori to be an invariable social totality." The macro-institutions of the State and Market were no longer seen adequate mechanisms of control and so micro-institutions of control in the form of decentralised devices were preferred. Socio-Cybernetics is influenced by the sociological tradition and its obsession with deviance. From it, it prioritised the study of the *individual as a feedback locus*, a "self-disciplined personality."

Since the cybernetic hypothesis as a whole calls for a radically new physical structuring of the subject, whether individual or collective, its aim is to hollow it out. It disqualifies as a myth individual inwardness/internal dialogue, and with it all 19th century psychology, including psychoanalysis. It's no longer a question of removing the subject from the traditional exterior bonds, as the liberal hypothesis had intended, but of reconstructing the social bonds by depriving the subject of all substance.

Drawing on Lyotard, cybernetics is regarded as a "system that drags humanity along after it... permissiveness ... is only granted on the condition that greater performance levels will be produced. The redefinition of the norms of life consist in an amelioration of the skills of the system in matters of power."

It is argued that Cybernetics drew on the growing interest in mental health as a concept that "is co-extensive with international order" and reconsidered mental problems and social pathologies in terms of informatics. This new *politics of subjects* rested on communication and transparency to oneself and to others. The State and Markets offered impure information, second-rate to that of civil society. The growth of commodity relations developed an inverse lack of control by increasing the size of communities and feedback chains. Capitalist accumulation destroyed not only social bonds but social order itself.

In the crises of 20<sup>th</sup> century capitalism, cybernetics was seen as a solution to the *increasing problem of information*. Economists concerned themselves with questions of anticipation, uncertainty of demand, adjustments between production and consumption and forecasts of economic activity. Cybernetics could be understood in light of Marx's observation that "in political economy, law is determined by its opposite, absence of law. The true law of political economy is *chance*, from whose movement we, the scientific men, isolate certain factors

arbitrarily in the form of laws."<sup>16</sup> If political economy is a contributing factor to entropy and social chaos, cybernetics could be seen as a way to rescue capitalism with its emphasis on the need for *total transparency* of *homo economicus*' preferences regarding himself and others. Without the understanding such transparency provides to cybernetics, the idea of understanding micro-economic choices is fiction. This led to a decline in the autonomy of economic theory onto which was grafted the cybernetic promise of a balancing of systems, later known as *neo-liberalism*, which favoured "the optimal market allocation of information – and no longer that of wealth – in society." The Market became an instrument of co-ordination in a theorised game in which social individuals are economic players. "Capitalism thus becomes unquestionable, insofar as it is presented as a simple means – the best possible means – of producing social self-regulation."

The uncertainty following the 1973 economic crisis (and the global political contestation of 1968), was met by a number of theories which drew on cybernetics. Even Ecology was "nourished by this new mystique of the Great Totality." Cybernetics shifted from an emphasis on predicting the future to reproducing the present.

It is no longer a question of static order, but of dynamic self-organisation. The individual is no longer credited with any power at all: his knowledge of the world is imperfect, he doesn't know his own desires, he is opaque to himself, everything escapes him, as spontaneously co-operative, naturally empathetic, and fatally interdependent as he is. He knows nothing of all this, but THEY know everything about him.

Liberalism was to serve as a cover for a whole group of new technical and scientific practices "a diffuse 'second cybernetics'," which deliberately erases the use of the term 'cybernetics' in favour of hybrid terms.

The unity of cybernetics now manifests itself practically through the world itself, which is configures every day. It is the tool by which capitalism has adjusted its capacity for disintegration and its quest after profit to one another. A society threatened by permanent decomposition can be all the more mastered when an information, an autonomous "nervous system" is in place allowing it to be piloted.<sup>17</sup>

What today is known as the 'New Economy', is in fact an ensemble of transformations and subjugations, a *new politics*, "a new solution to the practical problem of the social order and its future." The 'invisible hand' is no longer "justificatory fiction" but now "the effective principle behind the social production of society, as it materialises within computer procedures."

This section ends with a summary of its own:

The Internet simultaneously permits one to know consumer preferences and to condition them with advertising. On another level, all information regarding the behaviour of economic agents circulates in the form of headings managed by financial markets. Each actor in capitalist valorization is a real-time back-up of quasi-permanent feedback loops. On the real markets, as on the virtual markets, each transaction now gives rise to a circulation of information concerning the subjects and objects of the exchange that goes beyond simply fixing the price,

<sup>16</sup> From Marx's *Comments on James Mill* http://www.marxists.org/archive/marx/works/1844/jamesmill/index.htm

<sup>17</sup> c.f. Nora and Minc (1978) The Computerisation of Society.

which has become a secondary aspect. On the one hand, people have realized the importance of information as a factor in production distinct from labour and capital and playing a decisive role in "growth" in the form of knowledge, technical innovation, and distributed capacities. On the other, the sector specializing in the production of information has not ceased to increase in size. In light of its reciprocal reinforcement of these two tendencies, today's capitalism should be called the *information economy*. Information has become wealth to be extracted and accumulated, transforming capitalism into a simple *auxiliary* of cybernetics. The relationship between capitalism and cybernetics has inverted over the course of the century: whereas after the 1929 crisis, PEOPLE built a system of information concerning economic activity in order to serve the needs of regulation - this was the objective of all planning – for the economy after the 1973 crisis, the social self-regulation process came to be based on the valorization of information.

**Section four** discusses the value of information and its circulation and the significance of time, risk, security and control .

Value can now be extracted from *information about information*. Commodity-cybernetic/neoliberal logic extends across all activity supported by States.

The growth of circulation of information on all subjects acts as a means of self-regulation, to both *disturb and control people in one and the same movement*. Cybernetics is founded on *terror* because a *state of emergency* is an occasion for the production of information.

Classical economics was concerned with supply and demand to permit growth which would lead to collective well-being. Today, growth is an "endless road towards balance." Western modernity is typified by "infinite mobilisation", a "movement towards more movement."

Cybernetics is the new capitalism. Since the 1970s, *Cybernetic Capitalism* has been "an emerging social formation that has taken over from Fordist capitalism which results from the application of the cybernetic hypothesis to political economy."

Capitalist growth implies destruction of the social body which is then reconstituted/reconstructed/reproduced through commodity circulation. Capitalism is a monster who at once pillages/appropriates and reproduces/reinvests. Marx thought that the crises of capitalism occurred due to a de-articulation between the time of conquest and the time of reproduction. Cybernetics functions to coordinate/control/pilot/manage these actions and thus avoid crisis.

The sphere of accumulation is now subordinate to the sphere of circulation. Circulation is nothing but a particular case of production, as considered in general. Surplus value, the source of profit, is no longer centred around exploitation in the wage system but rather the sphere of circulation. Such exploitation only brings about a crisis of consumption, whereas capitalist accumulation can still survive as long as the circulation of the production-consumption cycle is accelerated. "The logic of flows is to dominate the logic of the finished product. Speed is now taking primacy over quantity, as a factor in wealth. *The hidden face of the maintenance of accumulation is acceleration of circulation.*"

Cybernetic's control devices function to maximise the volume of commodity flows by minimising the obstacles. Cybernetic capitalism introduces the categories of 'real time' and 'just in time', expressing a hatred for duration. "For this very reason, time is our ally."

The cybernetisation of capitalism began in the 1870s with the growing control of production, distribution and consumption. Drawing on James Beniger's work<sup>18</sup>, the author(s) list how control related problems came about with the first train collisions which interrupted the flow of commodities and put human lives at risk. Railway signals, travel time measurement, data transmission devices such as the telegraph, synchronised clocks, organisational charts, weighing systems, roadmaps, etc. etc. were invented to respond to a generalised crisis of control caused by the acceleration of the industrial revolution. "Information and control systems thus developed at the same time as the capitalist process of transformation of materials was growing and spreading... *Expectability had become a source of profit as such and a source of confidence.*" Marketing and advertising was also a means of control over the masses, exhorting their 'preferences', which were the true source of value to marginalist economists. The post-war development of computers permitted the regulation of the circulation of flows within society, making them *exclusively commodity flows*.

Insecurity rather than scarcity is now at the core of our present capitalist economy. "The control and communications sectors develop because commodity valourisation needs to have a looping circulation of information parallel to the actual circulation of commodities, the production of a collective belief that objectivises itself in values." Information about what is to be exchanged precedes the exchange of goods and conditions the market. "Perfecting the circulation of information will mean perfecting the market as a universal instrument of coordination."

Cybernetics entered into the operation of capitalism with the intention of minimizing uncertainties, incommensurability, the kinds of anticipation problems that can interfere in any commodity transaction. It contributes to consolidating the basis for the installation of capitalism's mechanisms, to oiling Capital's abstract machine.

The political moment (that which subjugates, normalises) of political economy subsequently dominates its economic moment. "Capital permeates all living flows: the socialisation of the economy and the anthropomorphosis of Capital are two symbiotic, indissoluble processes." The State introduce *surveillance and data capture devices* in the "construction of a decentralised real-time gridding system. The common intent of these devices is *total transparency*, an absolute correspondence between the map and the territory, a will to knowledge accumulated to such degree that it becomes a will to power."

The socialisation of control is the trademark of the 'information society'. The control sector is autonomous and in the hierarchy of control, the police, law and judicial system are *controllers of last resort*. The development of cybernetic capitalism has been accompanied by the development of hyper-securitarianism. Traditional discipline, such as states of emergency, are transplanted by *the fear of any threat*.<sup>19</sup> The cybernetic logic of decentralisation extends and prolongs the centralised institutions of control (i.e. prisons) through the use of tracing devices (i.e. electronic bracelets) and other "nomadic forms of control" such as 'community policing.' In so far as the cybernetic logic intends to ward off events and organise feedback, this has a predictive purpose that "aims to eliminate all uncertainty connected to all possible futures." "Risk-based discourse is the motor for the deployment for the cybernetic hypothesis; it is first distributed diffusely so as then to be internalised." There is no such thing as zero-risk, therefore the permanence of risk in the system makes it "an ideal tool for affirming new forms

<sup>18</sup> Beniger, J. (1989) The Control Revolution. Harvard University Press.

<sup>19</sup> Note that this was written prior to September  $11^{\text{th}}$  2001.

of power, to the benefit of the growing stranglehold of devices on collectives and individuals." Risk is supposed to unite individuals around a common concern. "The more security there is, the more concomitant production of insecurity there must be." Yet the fear of risk leads to a lack of trust in the system to control your life, and this fear becomes contagious, presenting a threat to the system itself. "To fear risk is already to represent a risk for society." It leads to a general phobia, a paranoid fantasy of self-destruction. In cybernetic capitalism, each individual is subjectivised as a *Risk Dividual, as some enemy or another* [a "whatever enemy"] of the balanced society.

Since the 1980s, the dismantling of social protection systems has led to an attempt to make *everyone* bear the 'risks' borne by capitalism. We must expect nothing from society but sacrifice everything to it for the sake of social reproduction. Self-control has been generalised resulting in a disposition that favours the proliferation of control devices. "*All crises, within cybernetic capitalism, are preparations for a reinforcement of devices.*" The citizen as a political subjectivity "has totally auto-repressed the risk that he or she objectively represents."

In contrast to the mechanisms of control in the 19<sup>th</sup> century, which dissolved social bonds, cybernetic capitalism develops social bonds (a 'nebulous citizen-community') through "the imperative of self-piloting and of piloting others in the service of social unity: it is the *device-future* of mankind as citizens of Empire." The importance of these *citizen-device systems* demonstrates that despite ambitions to the contrary, cybernetic capitalism cannot do without human beings.

In summary, section four focuses on the role of information to both terrorise and control people. The sphere of circulation of commodities/information is increasingly seen as a source of profit and as this circulation accelerated with the development of mass transportation and communication, so the risk of disruption to the flow of commodities/information became more of a threat. In cybernetics, total transparency is seen as a means of control yet because the removal of risk is never absolutely possible, citizens are understood as both presenting a risk to the system and a means to regulate that risk through self-control. Control is therefore socialised and now defines the real-time information society. An awareness of risk brings with it an awareness of the vulnerability of a system that is dependent on an accelerated circulation/flow of information. Time/duration is a weakness and disruption to time is signalled as an opportunity to halt the flow and therefore the project of cybernetic capitalism.

As part of their "genealogy of imperial governance", in **section five**, the author(s) discuss the utopias of eco-society and socialism. They begin by noting the Club of Rome's 1972 report, *Limits to Growth*, which, through computer modelling, argued that growth was unsustainable.

From the lofty heights of domination, THEY demanded "zero growth" so as to preserve social relations and the resources of the planet, introducing qualitative components into their analysis of development, against the quantitative projections focusing on growth, and demanding - definitively - that it be entirely redefined; that pressure grew until it burst in the 1973 crisis. Capitalism seemed to have made its own self-critique.

The report was inspired by *World Dynamics,* a book by System Theorist, Jay Forrester who was an academic in MIT's School of Management. *World Dynamics* provided a systems analysis of the economic world. Forrester developed the original computer model, World2, which was developed into World3 by the Club of Rome.

In France, 'eco-socialism' was developing with the work of the 'Group of Ten' which signalled rather than a questioning of capitalism, a question of how to reorient the economy to better serve our needs. Notions of equilibrium and balance were forefronted, regulated in a cybernetic sense through collective intelligence.

The first ideologues of cybernetic capitalism talked about opening a communitybased management of capitalism from below, about making everyone responsible thanks to a "collective intelligence" which would result from the progress made in telecommunications and informatics. Without questioning either private property or State property, THEY invite us to co-management, to a kind of control of business by communities of wage-workers and users.

This, the authors argue, was the beginning of the alliance between liberal socialism and ecology and the reversal of 'socialist' ideas against themselves. The most recent example of this trend can be seen in the 'anti-globalisation' movement and other citizen protests which have a vision of society as a totality threatened by break-up. Theirs are protests to restore social coherence pulverized by cybernetic capitalism, their goal being social regulation which guarantees mass participation in cybernetic capitalism. Citizens, dispossessed of everything, conceive their lives as an uninterrupted series of 'projects' to carry out, giving 'dignity' to their lives which they 'manage'. This new 'self-management' was seminal in the reorganisation of capitalism in the 1970s and crystallised the second period of cybernetics, an understanding of civilisation as a process in which authority – political representation – is critiqued.

This new horizontalism, participation and decentralisation is supposed to replace hierarchy and bureaucratic authority, but extends and tightens the chains of social interdependence sometimes through surveillance and sometimes through delegation.

Integration of civil society by the State, and integration of the State by civil society more and more work together like gears. It is thus that the division of the labor of population management necessary for the dynamics of cybernetic capitalism is organized - and the affirmation of a "global citizenship" will, predictably, put the finishing touches on it.

Post 1970s, socialism was necessary for the progress of the cybernetic hypothesis.

The ideal of direct democracy and participatory democracy must be seen as the desire for a general expropriation by the cybernetic system of *all the information* contained in its parts. The demand for transparency and traceability is but the demand for the perfect circulation of information, a *progressivism in the logic of flux* that rules cybernetic capitalism.

They critique Habermas for reducing the 'lived world' and 'everyday life' (that which escaped the control machine) to social interactions and discourses, accusing him of ignoring the fundamental heterogeneity of forms-of-life among themselves. "In the same way as contracts, consensus is attached to the objective of unification and pacification via the management of differences." 'Communicational action' ends up serving control and therefore science and technology are 'ideologies materialised',

a cascade of devices, a concrete government-mentality that passes through [intersubjective] relations. We do not want more transparency or more democracy. There's already enough. On the contrary – we want more opacity and more intensity.

Socialism has expired as a result of the cybernetic hypothesis.

Finally, the author(s) discusses the critique centred around man-machine relations, mentioning Zerzan, Kaczynski, Illich, Simondon, Guattari and Latour. Utopian ideas of humans in charge of machines, *representing* objects which cannot represent themselves, and with this, an integration of technological thinking by everybody, would never undermine existing power relations and "do no more than extend the struggle for recognition and the tyranny of transparency to the inanimate world."

In this renovated political ecology, socialism and cybernetics would attain to their point of optimal convergence: the project of a green republic, a *technological democracy* – 'a renovation of democracy could have as its objective a pluralistic management of the whoel of the machinic constituents,' wrote Guattari in the last text he ever published – the lethal vision of a definitive civil peace between humans and non-humans.

In summary, section five is a critique of socialism and the ecology movement proposing how these two movements have been subsumed by cybernetic capitalism. The popular forms of protest over the last 30 years have only strengthened the cybernetic objectives of social interdependence, transparency and management. This marked the second period of cybernetics which has sought to devolve the responsibility of regulation through surveillance through the affirmation of 'citizenship' and 'democracy'.

**Section six** is a critique of autonomous Marxism, in particular the recent work of Negri. The cybernetic utopia has sucked the blood out of socialism and contaminated "the most advance Marxism, making its perspective inoffensive and untenable." By developing and relying on "*abstract* axioms of potentially revolutionary antagonisms" the autonomists "definitively serve the political project of a broader social integration." They assert that the teleology of ecology or political economy is "no longer that of the proletariat or of nature, but that of Capital."

The author(s) argue that the autonomist's perspective is of the *socialisation of the decisions of production.* Their "pretend communism is reduced to no more than an economic democratism, to a project to reconstruct a "post-Fordist" State from below. Social co-operation is presented as if it were a pre-ordained given, with no ethical incommensurability and no interference in the circulation of emotions, no community problems."

With this "will to will", this "infinite mobilisation", the cybernetic hypothesis has sealed Marxism's defeat. Cybernetics has plugged itself into the metaphysics of production that runs throughout Marxism and which "Negri had pushed to the extreme by considering all affects, all emotions, all communications - in the final analysis - as labor." The author(s) critique is one against the restrictive "belief in work as a fundamental value."

Negri's Marxism, like all other Marxisms, operates "on the basis of an *abstract* axiom concerning social antagonism... only because it has a *concrete* need for the fiction of a united social body." Negri's communism is a *new social contract* and within classical politics, he has been at the avant-garde of the (previously critiqued) ecologist movements.

There follows a brief discussion of the Autonomia movement, which, they argue, based itself on a reading of Marx's *Grundrisse*, where he proposes that machines would replace much of the need for physical labour and the new revolutionary subject would re-appropriate its creativity into a *general intellect*, where this non-labour time becomes a new source of self and collective emancipation.

Drawing on Lyotard, they argue that Negri's Marxism is an ensemble of heterogeneous positions, representing "the point of completion of the Marxist tradition and its metaphysics" and "is doomed to restless political wandering, in the absence of any destination other than whatever destination domination may set for it." Negriism valorises everything that is *outside of value;* it is a *neutral communism* compatible with capitalism and in fact, the condition for its effectuation.

Since *Limits to Growth*, the role of creativity and technological innovation in promoting growth has been a focus for economists, alongside Labour and Capital. The related interest in "human capital" led to a focus on the "cognitive and natural social base for the maintenance of capitalism and its development." Everyday life, largely neglected until this point, was considered to contain *potential value* insofar as it maintains Capital's human base. Growth was reorganised "towards democratising economic choices and giving institutional support to non-work (life) time." As a social critique, this 'freedom' that people demanded was inherited by capitalism just as the cybernetic hypothesis inspired a mode of social regulation.

Negri and Hardt's pointed out that in the context of intangible and biopolitical production, the traditional demand for control over the machines of production assumes a new aspect. The masses take on the role of machines, integrating the means of production into our bodies and minds. This new control and reappropriation of knowledge, information and communication, is, the author(s) argue, the point where "everybody would be simultaneously a producer and consumer. Everyone will become their own 'self-media'! Communism will be a communism of robots!"

The critique of political economy "remains dependent on economism" and a proletariat that is "unpresentable, non-ostensible."

The search for a fighting class of producers makes the Marxists the most consequential of the *producers of an integrated class*. It is not an irrelevant matter, in existential and strategic terms, to enter into political conflict rather than producing social antagonism, to be a contradictor within the system or to be a regulator within it, to create instead of wishing that creativity would be freed, to desire instead of desiring desire -- in brief, to fight cybernetics, instead of being a *critical cybernetician*.

Throughout the two-hundred years of socialist and communist activity they have fought in common against the single issue of separation without fighting against the assimilating totalisation of capitalism. Furthermore, an alliance between socialisation and cybernetics has been made over their respective faith in humanity ("shameful humanism").

All socialism today - whether it more or less explicitly categorizes itself as democracy-, production-, or social contract-focused - takes sides with cybernetics. Non-citizen politics must come to terms with itself as anti-social as much as anti-state; it must refuse to contribute to the resolution of the "social question," refuse the formatting of the world as a series of problems, and reject the democratic

perspective structured by the acceptance of all of society's requests. As for cybernetics, it is today no more than the last possible socialism.

In summary, section six offers a critique of the Marxist response to cybernetic capitalism and finds it contaminated and complicit in its economism, humanism and totalising view of the world.

**Section seven** is an attack against the ineffectiveness of theory. The author(s) criticise theorists for engaging in performance that proclaims *intensity* but doesn't engender the *passage* of intensity. Theory and critique are cloistered in a mythology of the Word, and inspired by his cut-up method, Burroughs proposed offensive strategies towards the controlled circulation of pronouncements through the promotion of "interference/fog" as a revolutionary weapon, which the author(s) liken to the situationist practice of detournement. On the Internet, viruses, spamming and piracy can be seen as contemporary forms of this attempt to destablise the operation of the communications network.

In attempting to overcome the issuer-receiver relation of communication, again drawing on Burroughs, the author(s) suggest that "what's at issue in any enunciation is not whether it's received but whether it can become contagious."

I call *insinuation* - the *illapsus*, according to medieval philosophy - a strategy consisting in following the twists and turns of thought, the wandering words that win me over while at the same time constituting the vague terrain where their reception will establish itself.... Insinuation is the haze of theory and suits a discourse whose objective is to permit struggles against the worship of transparency, attached at its very roots to the cybernetic hypothesis.

Cybernetics requires "extreme rationalisation", reduction and "binary flattening".

Attacking the cybernetic hypothesis - it must be repeated - doesn't mean just critiquing it, and counterposing a concurrent vision of the social world; it means experimenting alongside it, actuating other protocols, redesigning them from scratch and enjoying them. Starting in the 1950s, the cybernetic hypothesis has been the secret fascination of a whole generation of "critical" thinkers, from the situationists to Castoriadis, from Lyotard to Foucault, Deleuze and Guattari.

The success of all future revolutionary practice will be measured in its capacity to render the conflict between critical thinking and cybernetics obsolete.

In summary, section seven offers a brief critique of critical theory and finds it to be an ineffectual performance cloistered in the mythology of the Word and secretly fascinated by the cybernetic hypothesis. The section introduces insinuation as a mode of interference/fog and a tactic for overcoming the controlled circulation of communication. The author(s) indicate that the remaining sections of the Cybernetic Hypothesis are an attempt to undo the world that the cybernetic hypothesis constructs.

**Section eight** discusses the category of *panic* as a practical method of defeating the process of cybernetisation. In contrast to the efforts of Empire, which "is an ensemble of devices that aim to ward off all events, a process of control and rationalization", panic is irrational behaviour:

"Panic makes the cyberneticians panic. It represents *absolute risk*, the permanent potential threat that the intensification of relations between lifestyles/forms-of-life presents... it is a disintegration of the mass *within* the mass."<sup>20</sup>

The panic evoked around the G8 summit in Genoa, 2001, is offered as a successful example of panic, which was "sufficient to fuck up the cybernetic programming and pass through various social groups/milieus..." and to a greater degree, so was the panic that arose from Orson Welles' radio broadcast of War of the Worlds in 1938.

Drawing on the philosopher, Peter Sloterdijk, they propose that civilisation only exists because of the proximity of panic; there is thus the opportunity to rediscover a primordial familiarity with catastrophe and convert this energy into a "*rational ecstasy* through which the individual opens up to the intuitive idea: 'I am the world'." Panic is a "positive potential charge, a confused intuition (in con-fusion) of its transcendence, is that each person, when in a panic situation, is like the living foundation of his own crisis, instead of undergoing it like some kind of exterior inevitability."

Each member of society is a 'risk dividual', representing a risk of social disintegration. In a panic situation, the individual experiences the end of hope and the feeling of having nothing more to lose. This experience hold the potential to reintroduce "a serene relationship with the flight forward movement of cybernetic capitalism. In the twilight of nihilism, fear must become as *extravagant* as hope."

Within the cybernetic framework, "panic is understood as a status change in the selfregulating system." Panic is 'noise' in the cybernetic system, "the lines of flight, the wanderings of desires that have still not gone back into the valorization circuit, the nonenrolled." Noise is a discrepancy between desired behaviour and real behaviour in the system, it is bad feedback that distorts and then amplifies what it's supposed to signal. Noise points the way to "pure *reverberatory power*." An example of this noise is spamming, the practice of "bombarding certain nodal points on the Internet network with information."

"All revolt under and against Empire can only be conceived in starting to amplify such "noises," capable of comprising what Prigogine and Stengers - who here call up an analogy between the physical world and the social world - have called "bifurcation points," critical thresholds from which a new system status becomes possible."

The author(s) criticise Marx and Bataille for having situated revolutionary power "*outside of the circulation of commodity flows*, in a pre-systemic exteriority set before and after capitalism..." Revolutionary force is instead an 'Invisible Revolt', a form of *ecstatic politics*, that does not come from the outside but from discrepancies, small variations, from the interior of the system that "push it locally to its breaking point."

"To put it more precisely, ecstatic politics comes from desires that exceed the flux insofar as the flux nourishes them without their being trackable therein, where desires pass *beneath the tracking radar*, and occasionally establish themselves, instantiating themselves among lifestyles that in a given situation are playing the role of attractors."

<sup>20</sup> This section appears to be quoting some other text on several occasions, but it is unclear what the exact reference is. Caillois? Cesarano?

The invisible revolt is composed of non-conforming acts of experimentation "located *within* fluctuation, *in the heart of noise*, lying in wait for the bifurcation." These events are "more than just a simple sum of individual behaviours," they are, rather, "the amplification of non-confirming acts, the intensification of desired and their rhythmic accord; the arrangement of territory..." In essence, "there are three questions, then, which require investigation in view of an offensive against the Empire: *a question of force, a question of rhythm, and a question of momentum.*"

In summary, section eight discusses panic, noise, invisibility and desire as categories of revolutionary force against the cybernetic framework. Panic is irrational behaviour that represents absolute risk to the system; noise is a distortion of behaviour in the system, neither desired behaviour nor the anticipated real behaviour. These invisible discrepancies are small variations ('non-conforming acts') that take place within the system and are amplified and intensified by desire. An individual acting alone has no influence, but their desire can produce an *ecstatic politics* which is made visible in a lifestyle which is, quite literally, attractive, with the potential to produce whole territories of revolt.

**Section nine**, elaborates further on the practice of invisibility as a form of struggle produced by guerilla action. To be invisible in a cybernetic system, is to be unpredictable. When amplified, these fluctuations are a heterogeneous, *irreconcilable multiplicity* of lifestyles which cannot be aggregated together, just as desires can never form a closed totality. Invisibility, as a form of struggle, will be produced by 'diffuse guerilla action', just as, the author(s) argue, the Autonomists of the 1970s, which was a reaction to the advanced cybernetic mentality of the Italian government of the time.

The principles of guerilla war were worked out by T. E. Lawrence, fighting alongside the Arabs against the Turks in 1916:

"The majority of wars are contact based; two forces struggling to remain close to one another in order to avoid any tactical surprises. The war of the Arabs had to be a rupture based war: containing the enemy with the silent threat of a vast desert unknown to it and only revealing themselves at the moment of attack."

Like in the vast desert, the enemy in the cybernetic system is a faceless, impersonal power materialised in Empire's devices. The invisible revolt of guerilla action occurs on the molecular level through two gestures, which are worth quoting in full:

"I fabricate the real, I break things down, and break myself down by breaking it all down. This is the source of all acts of sabotage What my act represents at this moment doesn't exist for the device breaking down with me. Neither 0 nor 1, I am the absolute outsider/third party. My orgasm surpasses devices/my joy infuriates them. Second gesture: I do not respond to the human or mechanical feedback loops that attempt to encircle me/figure me out; like Bartleby, I'd "prefer not to." I keep my distance, I don't enter into the space of the flows, I don't plug in, I stick around. I wield my passivity as a force against the devices. Neither 0 nor 1, I am absolute nothingness. Firstly: I cum perversely. Secondly: I hold back. Beyond. Before. *Short Circuiting and Unplugging*.In the two cases the feedback does not take place and a line of flight begins to be drawn. An external line of flight on the one hand that seems to spread outwards from me; an internal line of flight that brings me back to myself. All forms of interference/fog come from these two gestures, external and internal lines of flight, sabotage and retreat, the search for forms of struggle and for the assumption of different forms-of-life. Revolution is now about figuring out how to conjugate those two moments."

Drawing further on Lawrence, the author(s) propose that making small strategic strikes and then withdrawing is more effective than making big drives or striking big blows, asserting diffuse acts of sabotage against the lines of communication, for example, rather than the institutions themselves. Again, quoting Lawrence:

"we sought to attain maximum irregularity and flexibility. Our diversity disoriented the enemy's reconnaissance services... A rebellion can be carried out by two percent active elements and 98 percent passive sympathizers."

Despite advocating spontaneity, the author(s) do not rule out the usefulness of institutions in organising strategic information that allow their plans to be carried out with certainty.

Reflecting on the Internet, they suggest that although this distributed network was designed to resist attack, a selective attack aimed at 5% of the most strategic nodes such as the transatlantic lines, would cause a collapse of the system. Territorial boundaries remain a weakness in cyberspace.

"Whether virtual or real, the Empire's spaces are structured by territories, striated by the cascades of devices tracing out the frontiers and then erasing them when they become useless, in a constant scanning sweep comprising the very motor of the circulation flows."

The problem of force is then reformulated as a problem of invisibility: *a problem of modulation of opening and closing*. Both spontaneity and organisation, *two distinct planes of consistency*, need to be established, "one to organize opening, transforming the interplay of lifestyles/forms-of-life into information, and the other to organize closing, the resistance of lifestyles/forms-of-life to being made into information." These would occur at a "fundamental distance from the regulated flows, a distance that is precisely the condition for any experience within the world of devices, a distance which is a power that I can layer and make a future from."

In summary, section nine elaborates on invisibility as the preferred mode of diffuse guerilla action. A method of small selective strikes on the lines of communication followed by strategic withdrawal are preferred over large blows to institutions. Despite the distributed nature of the Internet, territorial interests have produced a conceivably vulnerable network reliant on a relatively small number of main trunks. Both individual spontaneity and the organisational abilities of institutions are valued but both should remain distant from cybernetic power and adopt a wandering course of unpredictability.

**Section ten** discusses slowness, encounters and rhythm. It begins by quoting the Situationist's declaration that revolution is a race between free artists and the police to develop the new techniques of conditioning. "The outcome depends on the appearance of passionate and liberating environments, or the reinforcement – scientifically controllable and smooth – of the environment of the old world of oppression and horror..." The author(s) argue that

"the revolution should consist in a re-appropriation of the most modern technological tools, a re-appropriation that should permit contestation of the police on their own turf, by creating a counter-world with the same means that it uses. Speed here is understood as one of the important qualities of the revolutionary political arts."

Similarly, the Luddites' sabotage of machinery was not simply a "primitive rebellion", but rather a "deliberate *slow down* of the flux of commodities and persons, anticipating the central characteristic of cybernetic capitalism insofar as it is movement towards movement, a will to potential, generalised acceleration."

Speed dampens fluctuations in the system, making it all the more stable. Conversely, "slowdown tactics thus have a supplementary potential in struggles against cybernetic capitalism because they don't just attack it in its being but in its process itself." Slowness brings about relations between people that are otherwise irreducible to simple information exchanges.

Another possible world is to be found in encounters with other people. Encounters are the "territory that actualises the potentials of bodies." They are above and beyond speed and slowness in communications. The space of *encounters*, is "that durable instant where intensities manifest between the forms-of-life *present* in each individual." Encounters are "above the social and communications... above language, outside of words, in the virgin lands of the unspoken, in suspended animation, a potential of the world which is also its negation, its 'power to not be'." Encounters with the Other, "incarnates the possibility that the world has of not being, of being otherwise." War is an attempt at annihilating any other *possible* world. Yet thinking about war gives rise to thoughts about love. Each act of love is a desire to transform oneself by transforming the world. Love excites hate and suspicion against the war that lovers wage by loving each other.

"Speed upholds institutions. Slowness cuts off flows." The authors discuss the 'kinetic problem' of politics, the need to explore other encounters besides those "commanded by the temporality of urgency." Cybernetics has given a rhythm to the social body, "which tends to prevent all respiration." Rhythm is the opposite of a program, it is *wobbly*, can go faster, slower, stop, jump... it is history in motion. "Events are the appearance of such traces and making History means improvising in search of rhythm."

"...political kinetics can be better understood as the *politics of rhythm*. This means, a *minima*, that the binary techno-rhythm imposed by cybernetics must be opposed by *other rhythms*."

These other rhythms have always had a creative political function. Good rhythms "open things up for an intensification of experience as well as for numerical increase. It is an instrument of aggregation as well as an exemplary action to be imitated." The point here is that alternate, wobbly, rhythms can be a, literally, attractive force. The author(s) are arguing for the potential of individual encounters for disrupting the rhythm of cybernetic capitalism. Rhythms which are slow or wobbly, which reverberate *another state* of being and upset the cybernetic flows. Empire has two possible "regimes of rhythm": The first is that where individuals are 'technicians', who, through self-regulation, reinforce the rhythm of the machines surrounding them, and that connect them to each other.

"The second rhythm aims to undermine this interconnective function: it is profoundly dis-integrating, rather than merely noisy. It is a *rhythm of disconnection*. The collective conquest of this *accurate dissonant tempo* must come from a prior abandon to improvisation."

In summary, section ten develops the author(s) tactics for countering cybernetic capitalism, through the application of slowness, disruptive rhythms, and the possibilities that arise from encounters with others. The cybernetic system is a *politics of rhythm* which thrives on speed for stability (as was discussed in section four) and a range of predictability. The guerilla strategy is therefore one of dissonant tempos, improvisation and 'wobbly' rhythmic action.

**Section eleven** is the final section of *The Cybernetic Hypothesis*. This section continues to elaborate on the author(s) proposed method of revolt against cybernetic capitalism. Panic is a generalised form of threat to the cybernetic system. Such threats can only be absorbed, rather than transcended, if they are to be eliminated. Information is distinct from noise in that it can be codified and uniformed. Noise, on the other hand, remains outside of this determination and predictability.

"For a physical, biological, or social system to have enough energy to ensure its reproduction, its control devices must carve into the mass of the unknown, and slice into the ensemble of possibilities between what is characterized by pure chance, and has nothing to do with control, and what can enter into control as hazard risks, immediately susceptible to a probability calculation."

The distinction between noise and information is a matter of finding the balance between repression (of noise) and reconnaissance (of information).

Panic is provoked by extending the background interference making the "recording of behavioral discrepancies by the ensemble of cybernetic apparatuses costly." Drawing on Clausewitz and Lawrence, the author(s) suggest that resistance should be "*vaporous and fluid*, it should not condense anywhere." It should be "immobile", comparable to "*an influence*, an idea, a kind of intangible, invulnerable entity, with no front or back, which spreads everywhere like a *gas*.' *Interference is the prime vector of revolt*."

In the cybernetic system, transparency is a form of tyranny imposed by control. Like fog and interference, *haze* can disrupt the co-ordinates of perception. "It makes it indiscernible what is visible and what is invisible, what is information and what is an event. This is why it represents one of the conditions for the possibility of events taking place. *Fog makes revolt possible*."

Invisibility, interference, fog and opacity (previously mentioned in section five) are developed further in this section. Fog-like revolt is "dissemination and dissimulation at the same time. In the same way as the offensive needs to make itself opaque in order to succeed, opacity must make itself offensive in order to last: that's the cipher of the invisible revolt." This cipher highlights again the importance of momentum, first mentioned in section eight. Fog is a response to the cybernetic imperative of transparency/clarity, "which is the first imprint of imperial power on bodies." It is against "the fictions of direct democracy insofar as they intend to ritualise the transparency of each person in their own interests, and of all persons in the interests of all."

"To become opaque like fog means recognizing that we don't represent anything, that we aren't identifiable; it means taking on the untotalizable character of the physical body as a political body; it means opening yourself up to still-unknown possibilities. It means resisting with all your power any struggle for recognition."

To undertake this, a *zone of opacity* is required, "where people can circulate and experiment freely without bringing in the Empire's information flows... recreating the conditions for a possible experience, an experience which will not be immediately flattened out by a binary machine assigning a meaning/direction to it, a dense experience that can transform desires and the moments where they manifest themselves into something beyond desire, into a narrative, into a filled-out body."

These zones of opacity are the black blocs of the cybernetic matrix, from which an offensive will take place. The zones are at once small *nuclei* from where experimentation begins without being perceptible, a panic propagating *cloud* within the imperial system *and* spontaneous subversion at all levels. "The proliferation of these zones of offensive opacity (ZOO), and the intensification of their interrelations, will give rise to an irreversible disequilibrium."

To be effective in provoking a change in the system, there must be a critical mass that fluctuates from a pivotal, local centre, and amplifies to contaminate the whole system. This *"unassailable base"* should be sheltered from attack and from fear of attack and must have independent supply lines. As the cybernetic system seeks to absorb/deaden the fluctuating autonomous zone, the base must grow larger as monitoring increases. Following Lawrence, these zones are both physical, virtual and mental, in that they exist in the minds of people. "These are territories as much as they are mentalities. We call them *planes of consistency.*"

"In order that offensive opacity zones can form and be reinforced, there need to be planes like that, which connect deviations together, which work like a lever and fulcrum to overturn fear."

The "central ideological manoeuvre of the last twenty years" is "the re-appropriation by the critical cyberneticians of the category of autonomy/self-rule – along with the ideas deriving from it, self-organisation, auto-poïesis, self-reference, self-production, self-valorization, etc." Yet this view of autonomy, viewed through the cybernetic prism, "giving oneself one's own laws, producing subjectivities, in no way contradict the production of the system andits regulation." The autonomy that the author(s) assert "is not a substantial quality of beings, but the very condition of their becoming/future."

"It gives itself the means of lasting and of moving from place to place, means of withdrawing as well as attacking, opening itself up as well as closing itself off, connecting mute bodies as bodiless voices. It sees this alternation as the result of an endless experimentation. "Autonomy" means that we make the worlds that we are grow. The Empire, armed with cybernetics, insists on autonomy for it alone, as the unitary system of the totality: it is thus forced to annihilate all autonomy whenever it is heterogeneous. We say that autonomy is for everyone and that the fight for autonomy has to be amplified. The present form taken on by the civil war is above all a fight against the monopoly on autonomy. That experimentation will become the "fecund chaos," communism, the end of the cybernetic hypothesis."

In summary, section eleven is a final attempt to define the key categories of struggle against the domination of cybernetic capitalism. These can be summarily listed as slowness, invisibility, fog, haze, interference, encounters, zones of opacity, noise, panic, rhythm/reverberation/amplification/momentum and finally, autonomy. Combined, these constitute an offensive practice against the requirement and expectation of cybernetics for transparency/clarity, predictability, and speed in terms of the information communicated and regulation of its feedbacks. The author(s) do not reject the cybernetic system outright but rather see the possibility for autonomous zones of opacity from which the invisible revolt can reverberate outwards and lead to a collapse of the cybernetic hypothesis and the rise of communism.