

After Capitalism: Cyborgism

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A contribution to a critique of Historical
Materialism

The Humanist as Engineer Book III

Second Updated Digital Edition

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2015

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*After Capitalism: Cyborgism, a contribution to a critique of
Historical Materialism.*

Second Updated Digital Edition.

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Lund University, 2015

ISBN: 978-91-637-4329-0

In memoriam

Lic. Alfredo Armando Aguirre

Co-founder of the Latin-American Virtual University

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Prologue to the Second Edition

This second digital edition includes my research from 2013 until November 2015. There are many important changes from the first version. This version introduces the *Technocratic Mode of Production* based on the exploitation of the consumers. It includes a complete description of the cyborg society as it is today, the new castes that constitute it and the economic acts that regulate the new Mode of Production. Many of the new conclusions are derived from my current research which in a more didactical approach considers “order” at the center of the historical analysis instead of the vaguer concept of “information”. Our standpoint becomes clearer explaining better the *primacy of knowledge and experience over ideology*. Knowledge and experience for us are constituting aspects of the Civil Society -and therefore “irreversible” aspects of history- while ideology belongs to the political sphere, submitted to the changes of temporal and reversible acts. The immediate consequence of our standpoint is that the limits of history are Natural history; a Natural history which is driven by knowledge and experience and not by “ideological struggles” related to “class struggle”. In other words, the struggle for the constitution of a cyborg is prior and stronger than any other social struggle.

Lund, November 2015.

Prologue to the First Edition

The author of this text belongs to a generation habituated to live with global explanations. During our youth, the future of the world was the future of democracy and socialism. We belong to a generation of “leftist” that found in Marx and Freud, phenomenology and structuralism the most important answers that made sense of the everyday world. However, the developments of events during the last sixty years showed that our confidence was ungrounded. The depreciation of the theoretical thought accelerated in direct proportion to the development of technologies, and among them the impact of the digital developments was devastating. One of the most notable consequences of the digitalization of culture was the depreciation of the Marxian thought, but also the less recognized depreciation of all kinds of political-economic thought. The collapse of the world created before the Second World War open for the end of the “grand narratives” and the enthronization of Postmodernism. The production of fragmentary explanations took over the historical perspective with an important influence on social and economic thought. After 60 years of postmodern thinking, we believe that the time of Postmodernism is over. Politicians and economists over the world cannot continue to produce results in small packages. The whole picture must be restituted. Of course it must be done incorporating the lessons of the past to avoid making the same mistakes.

Postmodernism has left behind lots of scattered modernist philosophical remnants. It left a chessboard with only few pieces to work with, and in this allegory, only as references. The philosophical schools

remains, but the study of them is strictly for an education in the history of ideas. The situation is aggravating since the most important works from the 1960's and forth, (post-structuralists) deliberately have avoided obvious identity patterns. A word in Rio de la Plata's jargon language describes this situation, *cambalache*, a sort of "flea market" where everything lies higgledy-piggledy. Deconstruction and the focus on *differences* are vital to Postmodernism. Remaining is therefore the intersections, the contrasts, shadows, and sketches. When trying to orient in such an intellectual environment, the task reminds of patching scatterings, and building with tools of eclecticism. Not long ago, you could develop a problem from Marx as well as from Husserl. However, today it is necessary to build upon that which makes both Marx and Husserl jigsaw pieces in a totality – characterized by its lack of focus. This situation has also resulted in a demand, greater than ever, for competence in the field of history of ideas. In this book it is presented an eclectic philosophical tool which is centered on the idea of a historical phenomenology, understood as a *bricolage* of epistemologies which connect the ideological criticism of Kant with a philosophy of praxis in Marx, to a phenomenology of essences in Husserl and another of perceptions in Merleau-Ponty's and to Heidegger's anthropology. An eclectic background to phenomenology was anticipated by Merleau-Ponty when he wrote that phenomenology "can be practiced and identified as manner or style of thinking that existed as movement before arriving at complete awareness of itself as a philosophy. It has been long on the way, and its adherents have discovered it in every quarter, certainly in Hegel and Kierkegaard, but equally in Marx, Nietzsche, and Freud."¹

There are certainly many methodological approaches to formu-

¹ Merleau-Ponty, Maurice. *Phenomenology of Perception*. Routledge, 1994; p. viii.

late a history of thought, however, in this text we have chosen to use a method that not only can be traced back to Kant, Hegel and Marx but also has strongly been influenced by Modern Art and Psychoanalysis. This historical approach differs strongly from the “pure” phenomenological approach in spite of being connected with it through many common references. We will try to avoid using a specific terminology recognizable as belonging to some “school or tradition” but somewhere it can be unavoidable to do so. Our work has been especially influenced by the postphenomenological work of Don Ihde. We understand that in the history of thought there have been paradigmatic problems and frontiers that characterized a period of time which can be considered as schools or traditions; however, these collapsed with the detonation of Postmodernism. We believe that is time to reconstruct instead of deconstruct a new Modernism that we will describe as *Cyborgism*.

Lund, December, 2013

**PART I: Updating Historical
Materialism**

Organizational Materialism

Introduction

In the texts of the classics of political economy either a Cartesian scenario or a Kantian scenario is presented in which the immediate intuition of the everyday world is precluded behind the heterogenic imagery of older theological projects and empirical dreams of a future rational society. The goal of political economy was still that of a moral enterprise and was combined with the description of an empirical world similar to that of the physics of Newton. The contradictions inside their work, demonstrates once again the impossibility of the human mind to be free from the conditions of its historical time. Until the beginning of the 20th Century, the epistemology of the social sciences were dominated by a Cartesian or a Kantian perspective with some few exceptions as that of the work of Marx, who introduced an eclectic perspective in which some anticipations of phenomenological character can be detected. However, the main corpus of texts are the expression of a “objectivist” project in which the imaginary of social life is considered from the point of view of the methodology of physics and the mathematics of objective space and time references. The texts of the classics of Political Economy extrapolated everyday terms into an empiricist project in which these terms could not match reality. Terms as “value” –with a very long tradition in Ethics and Theology and “work”, which is very difficult to distinguish from the more general term “act”- are good examples of these phenomena.

In the following pages we will try to make a critical reading of this theoretical scenario from the point of view of our own time,

which is the time of an incipient informational society. Many of the economic questions that were important in the past are still important, but we cannot give to these questions the same answers. Many of the classical concepts and arguments which were developed in the past disappeared and seem naïve today. However, the old questions are still valid, and we will try to answer some of them with the terminology of our time which is that of a Cyber-Society.

By historical reasons, concepts as *order* and *information* were not and could not be present in the earlier Marxian agenda. We believe that these concepts refer to realities that transcend the original concepts of “matter” and “idea” that concerned earlier Marxism. The incorporation of both “order” and “information” to Historical Materialism is by necessity a task for a post-Marxian philosophy that breaks down the rests of the variety of Cartesian and the Kantian dualisms that Marxism got from his time’s philosophy. This task must avoid the simplicity of believe that we can substitute “industrial work” with “digital work” conserving the rest of the Marxian frame as if it would be independent from its time. Instead of this, we must reconsider the concept of “work” itself as “acting”. The preference that Marx gave to the term “work” as “remunerated acting” must be abandoned. According to our interpretation of human acting, the “substance” of any act is *order*. Considering “information” as the expression of an item’s² *unlikelihood*, we will consider “order” or “organization” as the expression of an item’s *likelihood*. In other words, we understand “order” as inversely proportional to “information” from the point of view of probabilities. Consequently, the organizational value of an act decides if the consequences of this act could be anticipated and controlled. By the same reason, because acting is embedded in an artifact, the organi-

² Item as synonym of event, artifact, act.

zational value of it must be that of guarantee this anticipation. We believe that the essence of the *modernization process* is that of converting unlikelihood into likelihood. To assure this main philosophical change in perspective is necessary to redefine Historical Materialism giving it a new concept of “materialism” including the concepts or “order” and “information”. This inclusion would allow us to sustain *the priority of knowledge and experience over ideology*. In Book III of Capital Marx distinguishes between *universal* labor and *cooperative* labor. *Universal* labor is a diachronic concept including “all scientific labor, all discoveries and all inventions” in history. *Cooperative* labor is a synchronic concept and is the result of the direct cooperation of contemporary individuals.

Incidentally, a distinction should be made between universal labor and co-operative labor. Both play their role in the process of production, both flow one into the other, but both are also differentiated. Universal labor is all scientific labor, all discoveries and all invention. This labor depends partly on the co-operation of the living, and partly on the utilization of the labors of those who have gone before. Co-operative labor, on the other hand, is the direct co-operation of individuals.³

This distinction is very important, because the concept of universal labor is hidden in the work of Marx who was much more interested in the study of cooperative labor. Universal labor is the kind of act that determines the level of knowledge and experience. It is *irreversible* and therefore independent of class struggle and ideology. To better understand the difference between cooperative labor and uni-

³ Capital Vol. III Part I. The Conversion of Surplus-Value into Profit and of the Rate of Surplus-Value into the Rate of Profit Chapter 5. Economy in the Employment of Constant Capital V. Economy Through Inventions. Marx Internet Archive.

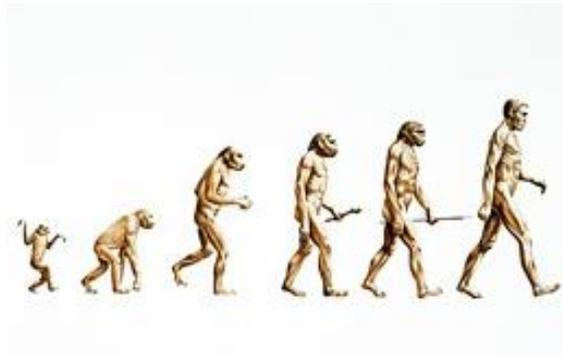
versal labor we must studied closer the differences between “History” and “Natural History”.

From History to Natural history

An important distinction which is very relevant for our study is that between testimonial and non-testimonial presentations. The death of e.g. Charles XII of Sweden (Presentation 1) is well documented through many important sources that *witnessed* the action. At the other hand the presentation of human evolution (Presentation 2) is *non-witnessed*.



Presentation 1: *The funeral transport of Charles XII.* by Gustaf Cederström, 1884



Presentation 2: A presentation of the human evolution.

We consider every testimonial statement “historical” (Social History) -and therefore belonging to the sphere of cooperative labor, ideology and class struggle- and the non-testimonial statement “natural historical” (Natural History) -belonging to the sphere of universal labor in the Civil Society. Both Marx and Freud jump in their argumentation between testimonial and non-testimonial presentations without making distinctions. For instance the Marxian theory about “the role of the hand and labor for the development of humanity” is a long-term extrapolation of natural historic character while the Marxian description of “history as class struggle” is an example of a public historical statement. The first resists changes of ideological character, the second surrounds to the avatars of short-term changes. Something similar can be said about the Freudian “murder of the ancestral father” which is a long-term extrapolation of natural historic character respective his observations based on e.g. biblical texts, which are testimonial

references and therefore based on short-terms extrapolations of public historical character. The cyborgization process that we are studying imposes a change in perspective for the study of human civilization from short-term to long-term extrapolations and the primacy of a natural historic scenario. The immediate theoretical consequence is then “post-human”, moving from public historical frame to a natural historical frame in which the human acts explains by the changes in knowledge and experience and not by “ideological struggles” related to “class struggle”.

This change of perspective is not changing to philosophical idealism because we are not giving preference to the subjective over the objective. Our standpoint is phenomenological; we are talking about a new kind of realism for which subject-object turn into an embodied analytical frame. Our standpoint implies the reconversion of Historical Materialism into a phenomenological frame. Historical Materialism conceives the social corpus as a “building” with an infrastructure and a superstructure. The historical logic of this building is based on short-term extrapolations as “ideology struggle”. However, as it have been stressed earlier by Marxists as Stalin and Althusser, products of knowledge and experience as science and language, cannot found a place into that building. If we insist using the metaphor of the “building”, the place of knowledge and experience would be “the atmosphere” around it; and we have a name for this “atmosphere”: long-term extrapolations saved as the *cyborgness* constituting the Civil Society. Accepting that Natural History drives by knowledge and experience implies also that some kind of “tension” inside the Civil Society must take place between different historical levels of knowledge and experience; we will describe this tension as *the drive for modernization*. These different competing modernization levels must not be mixed with the confrontations between different Modes of Production which

belongs to the short-term extrapolations of Social History. Of course there is an historical connection between the levels of Modernity and the Modes of Production but this connection is far from obvious. It is important to stress that the successfulness of an ideology can be measured in connection to its subordination to the drive after modernization. Further, cyborgness manifest in the *artificial order* of the Civil Society. We believe that the essence of what we call “modernization process” is the change of human way of acting from a “spontaneous” acting (unlikely) to an “artificial” acting (likely). We understand as acting “spontaneously” as relative to short-term extrapolations typical for public historic acting. By contrast, acting “organizationally” would be acting through long-term extrapolations, based on long-term strategies. Evidently these terms are relative and some acts will be *more or less* “spontaneous” respective “organizational” than others. Order develops with experience and this knowing-how is historically irreversible; learning new technologies changes everything and forever. Acting as a modern human is therefore relative to each period of history, changing the specificity of the act with time; that which was modern last year, is not modern today. The experience that we are talking about is an experience of embodiment; the body learns to develop artificial improvements that will merge with the body changing it permanently. This process can be unconscious, no words are needed to explain it, it only happens. It can be “forgotten”, but it will not disappear. This irreversibility of learning means also *originality*, because each new embodiment-step has never happens before and will not be repeated in the future. A consequence of this is that *each act changes the world for ever*.

Moving from a scenario defined by the mode of production of commodities to a scenario defined by the production of artificiality – commodities are part of this general process of organization- implies a

change of focus, from the scenario of Political Economy to that of Civil Society.

We delineate the Civil Society as the specific area of the human world in which *the family and the private sphere interacts with society as a whole*. We will defend the idea that the Marxian “classes” are in fact *castes*, in the sense of being a *compound of short-term and long-term extrapolations*. It is possible to show that the place of a group in society is necessary a projection from both a public historic and a natural historic character. Historical Materialism assumes that different Modes of Production generates different classes; according to our interpretation, these different classes are in fact short-term projections or “phantasms” of long-term castes.

To be consequent with our initial thesis defending the primacy of knowledge and experience over ideology, it will be necessary a foundation *of economic value as order*. In other words, we must show that work and economic value are functions of knowledge and experience. Historical Materialism’s economical theses about the production of values associated to “productive work” as a specific kind of human act –the economical act- must be reverted into a general theory of value *generated in human acting in general*. It is obvious for us today that the term “economics” is a misleading description of a much more complex reality: *human acting*. Establishing this difference led Marx to conceive e.g. labor as “material” and “thinking” as immaterial, founding his thoughts in a profound Cartesian-Kantian philosophical dualistic frame. We will show how Marx was very close to draw this conclusion by himself when he studied the “moral depreciation of technologies”.

Chapter 1: Modernity respective Archaicity

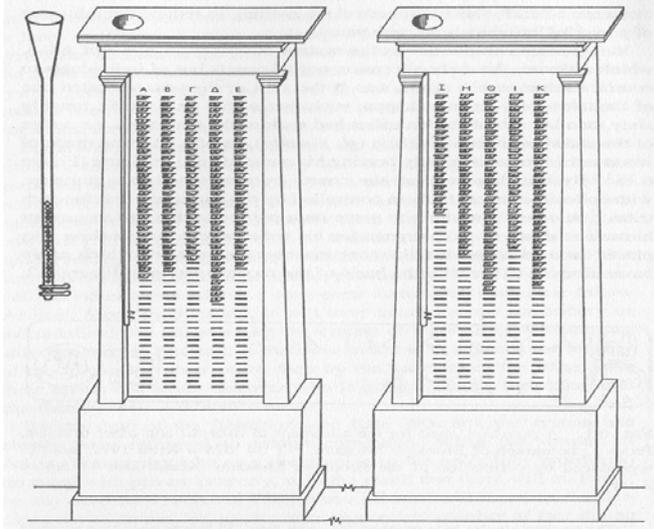
Our main thesis is that *modernization* is the drive after the “perfect order” expressed through simplicity, economy of means, saving chronological time and energy. This metamorphosis implied the change from a society in which the social order was structured in a one-to-one structure of relationships into a many-to-many structure. From our point of view, the process of modernization of society means also the changing from organizational richness to organizational simplicity; the consequence of the antagonism between life as order against entropy. For us, Modernity is never absolute and opens always for an archaic manifestation that finds new ways to oppose Modernity. Democracy for instance, understanding it as the mechanism which chooses leaders by voting, is a technological solution to the question of government. It implies a break with the archaic selection of leaders by ties of blood. Choosing the leaders by vote is therefore more modern than the solutions that could be applied in the aristocratic society. In spite of its modernity, this mechanism, which is built on the existence of majorities and minorities, implies indirectly the survival of possible extern factors that perpetuates archaic differences, for instance ethnical differences that match the majority respectively the minority of the society. In this sense, the political mechanism of democracy, being better than aristocratic political mechanisms, opens indirectly for the perpetuation of inequalities inherited from the society of ties of blood. While the rule of government based on the

supremacy of the majority could be considered more *artificial* than the aristocratic society, some better solutions have been implemented, for example the rule of government based on elections “by chance”, implemented in Greece from the year 487 B.D. This kind of mechanism would be *more artificial* than the election by majorities, because it works deeply against the implications of ties of bloods in “minorities” and “majorities”. It is then necessary to distinguishing which are the specific properties of a modernization process which differ from the consequences of spontaneous complexity of the ties of blood. Beside the development of the city, it could be possible to date other important steps of the early artificialization process; for example, the development of the political sphere in Greece. In the year 487 B.D. a radical initiative of Themistocles introduced *chance* as a political mechanism. The introduction of chance in politics was explained as the openness to the participation of the divinities:

Not only was Themistocles hostile to the aristocratic ethos that granted special power and prestige to the Areopagites; as a man who had already served his archonship and was eligible to repeat only his generalship, he had a more immediate interest in enhancing the role of the *strategoï* at the *archons'* expense. Selection by lot was a procedure commonly associated with democracy in Greece. It worked to discourage the machinations of special interest groups and ensure that a significant proportion of the men eligible for each office would participate in politics, and it seemed to offer the gods a role in choosing officials. The Athenians were no fools, however. They subjected all would-be office holders to an interrogation known as *dokimasia*, and they declined to employ the lot to se-

lect commanders for the state's armed forces.⁴

The introduction of chance implied the entrance of artificialism in politics. These artificial mechanisms distributed the power of decision of each gens in a collective of gens. In fact, this had been the most important contribution to the idea of a democratic system; the distribution of political power by pure artificial means. To make this possible the Greeks developed an astonishing machine: the “kleroterion,” or “allotment-machine”:

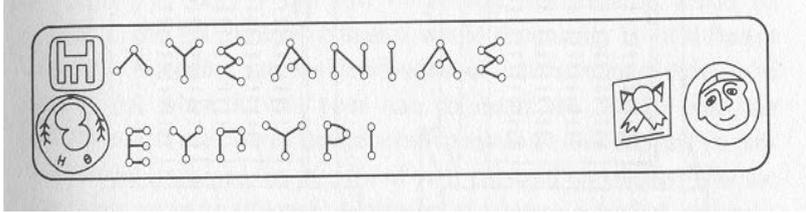


Presentation 3: The *kleròtèrion*

The *kleròtèrion* was a lottery device used by Athenians to randomly choose citizens for public duties; it was based on identity cards called *pinakion*. The machine consisted of a flat surface incised with many slots into which the citizens' identity-cards would be placed- It included a tube that was to be filled with different colored balls that,

⁴ Pomeroy, Sarah B., Burstein, Stanley M., Donlan, Walter, Tolbert Roberts, Jennifer. *Ancient Greece. A Political, Social and Cultural History*. Oxford University Press, 1999; p. 190.

when cranked out, determined which slots would be chosen.



Presentation 4: *Pinakion*: The identity card of the Citizens.

From the first days of ancient Greece, archaic and modern behaviors have coexisted to generate conflicts between an archaic world and a modern world. The development of classes far from substituting archaicity masked it. The archaic character of classes can be recognized in the politics of sex and procreation that controls the dialectics of honor and reciprocation. To this type of historic arrangement belong also the phenomena that are the consequence of an enlarged domain of the family ties, e.g. groups of friendship, regionalism, nationalism and racism. So if Social History is a consequence of class struggle, Natural History is *knowing-for-the-liberation* from the bonds of blood ties of the castes. This “knowing-for” tells us that classes are masked ethnical formations resistant to any artificial mechanism which can limit its incidence. To an effective resistance to modernization, the classes hide their ethnical character as short-term social constructions reinforcing their politic-economic character.

Archaicity respective Modernity

According to the *Online Etymology Dictionary* the term “artificial”

appeared as early as c.1382 meaning “made by man” and was understood as the opposite of “natural”. It comes from the Latin *artificialis* meaning “belonging to art”. In 1656 the meaning “device” was registered. In 1821 appeared the term *artifact* as “anything made by human art”. Later in 1890 the use of the term “artifact” extended to archaeological applications to include after 1956 the contemporary use of the term, applied to general cultural products as in the use “artificial intelligence”.⁵ The definition of “artificiality” as opposed to “naturally” present the same difficulty that to decide what is “alive” and what is not. To our help we will distinguish the acts that can be *reversible* from other acts that are not. It must be noticed that –in spite of the recurrent comparison that the history of thought shows between life’s forms and machines- no living form can develop reversible actions as those that characterizes machines. For instance, no living form can produce a *wheel* or a *propeller*, because life cannot develop *gear wheels*. The reason of this is ontological; live tissues develop linked *continuous parts*. The circular movement of a mechanical wheel corresponds to the *torsion* movement of the continuous living tissues. We can use this transcendental difference to develop a definition of “artificial” that can be distinguished from the idea of “natural”. We can call “artificial” a process that connects discontinuous parts of the world. To move e.g. a chair from a place to another is e.g. an “artificial act”. These artificial acts can be described *step by step*. That means that we can understand the movement of the chair as the summa of many small movements. We notice that living beings are not artificial systems but they can produce artificial acts. That means that the living body being not “artificial” can be connected to artificial processes.⁶ We can also study the limits between the “natural” and the “artificial” bit by bit, studying

⁵ Online Etymology Dictionary: <http://www.etymonline.com/>

⁶ Flores Morador, Fernando. *Broken Technologies. The Humanist as an engineer*. Lund, p. 113.

concrete cases. If we believe that “vision” is natural and “to see” is a natural act, “to see through glasses” cannot be considered “natural”; that means that the artifact makes the conversion from natural to artificial. In the same way, a hearing device makes the act of hearing an artificial act, and a megaphone makes the voice an artifact. But, some problems are more difficult to clarify; how can we for instance, distinguish a “natural” language from an “artificial”? Is it possible to understand every language as artificial? Understood as performatives or speech acts, language utterances can be understood as tools, and its structures and rules can be seen as artificial. For the same reason, developing grammatical rules makes natural language more artificial and less natural. Because seeing in the dark is not “natural” for humans, seeing with a candle is an artificial act and the candle became an artificial device. The consequences of this reasoning are important for a general consideration of the phenomenology of thinking as an artificial act. The connection between seeing and thinking and particularly seeing with “artificially produced light” is obvious in the history of thought. We can here remember Plato’s fire in the cave of prisoners, a fire that was responsible of the shadows of the real world.

Modernization according the Natural History of Freud

In his work *Totem and Taboo* from 1913, Sigmund Freud tried to find a historical explanation of the existence of neurosis in modern man. In his attempt, Freud developed a theory of the origin of society, culture and religion that can only be explained as long-term statements about *modernization*. Freud explains that his theory is based on three sources:

I tried in my book *Totem and Taboo* to reconstruct the ancient situation from which all these effects issued. In that

book I made use of certain theoretical reflections of Charles Darwin, Atkinson, and especially Robertson Smith, and combined them with findings and suggestions from psychoanalytic practice. From Darwin I borrowed the hypothesis that men originally lived in small hordes; each of the hordes stood under the rule of an older male, who governed by brute force, appropriated all the females and belabored or killed all the young males, including his own sons. From Atkinson I received the suggestion that this patriarchal system came to an end through a rebellion of the sons, who united against the father, overpowered him and together consumed his body. Following Robertson Smith's totem theory I suggested that this horde, previously ruled by the father, was followed by a totemistic brother clan.⁷

According to this theory Freud deduced that the ambivalent emotional attitude of the children in respect to the father was translated to the totemic animal of the tribe, to which some characteristics, similar to those of the father, were attributed. The totem was shielded from harm until the conclusion of a periodic ceremonial fest, in which all members of the group were forced to kill and eat the totem animal. Inspired by the Darwinian theory of evolution, Freud takes the existence of a violent and jealous father, which reserves for itself all the females; however he noted that this is a typical behavior among animals but it is not registered any case in human societies:

The most primitive kind of organization that we actually come across—and one that is in force to this day in certain tribes—consists of bands of males; these bands are composed of

⁷ Freud, Sigmund. *Moses and Monotheism*. Internet Archive; the Hogarth Press and the Institute of Psychoanalysis; 1939; p. 206.
https://archive.org/stream/mosesandmonothei032233mbp/mosesandmonothei032233mbp_djvu.txt

members with equal rights and are subject to the restrictions of the totemic system, including inheritance through the mother.⁸

About this Freud wrote in *Totem and Taboo*:

One day the expelled brothers joined forces, slew and ate the father, and thus put an end to the father horde. Together they dared and accomplished what would have remained impossible for them singly. Perhaps some advance in culture, like the use of a new weapon, had given them the feeling of superiority. Of course these cannibalistic savages ate their victim. This violent primal father had surely been the envied and feared model for each of the brothers. Now they accomplished their identification with him by devouring him and each acquired a part of his strength. The totem feast, which is perhaps mankind's first celebration, would be the repetition and commemoration of this memorable, criminal act with which so many things began, social organization, moral restrictions and religion.⁹

For Freud the erotic impulse, far from being a simple binding factor of human groups, it is also a source of conflict. Thus once killed the father, the brothers risked to be engaged in struggling with each other to take the father's place, with the consequence of the restoring of the previously existing structure. According to Freud, to avoid this, the new tribe of brotherhood, must have developed the prohibition of incest:

Thus the brothers had no alternative, if they were to live to-

⁸ Freud, Sigmund. *Totem and Taboo. Resemblances between the Psychic lives of savages and neurotics*; New York, 1919. p. 234.

⁹ Freud, Sigmund. *Tótem y Tabú; Ibid.*

gether, but—not, perhaps, until they had passed through many dangerous crises—to institute the law against incest, by which they all alike renounced the women whom they desired and who had been their chief motive for killing their father. In this way they rescued the organization which had made them strong—and which may have been based on homosexual feelings and acts, originating perhaps during the period of their expulsion from the horde. Here, too, may perhaps have been the germ of the institution of matriarchy, described by Bachofen [1861], which was in turn replaced by the patriarchal organization of the family.¹⁰

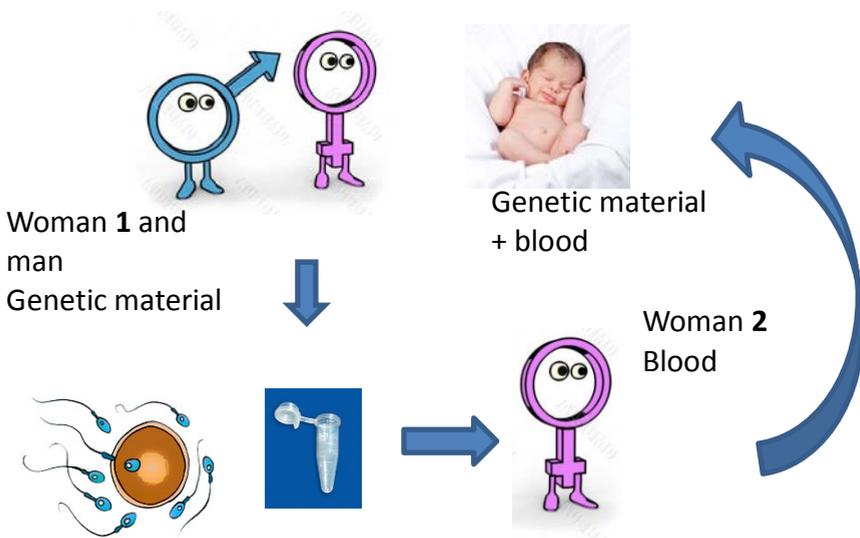
Natural History for Freud was then initiated by males struggling to meet their heterosexual desires. The return of the repressed for Freud manifests gradually as ancestral heritage, as the restorative power of an original state of facts, through a collective guilt of unconscious character. From Freud's words we can deduce that Modernity must have started with parricide after which mechanisms of artificial character modify the social conditions created by archaic spontaneity. However, as it is obvious, these artificial changes could only be implemented in a new archaic frame still organized upon ties of blood. Therefore, it is easy to conclude that only the complete substitution of sexual life and of biological reproduction can eliminate completely the influence of archaicity upon the cyborg.

Contemporary cyborgization of the family

We can study Freud's conclusions about the cyborgization of the archaic family in contemporary social life. The cyborgness of family

¹⁰ Freud, Sigmund. *Tótem y Tabú*; p. 238.

life in our time can be discovered in the radical manipulation of the body and its substances. It is the concretion of artificialization identifying cyborg life with a secure life. Modernization of life has experienced a boost based on the new technological advances that permit the implementation of *artificial insemination*, *egg donation*, *surrogate motherhood* and *in vitro fertilization*. These new gestational solutions seem to change completely the prospects of a future society. Until now it was possible to say that the relations of blood also coincided with the genetic relationships. However today, to have a community of blood means that the embryo has grown within the substance (blood) of a woman, which will not necessarily be the genetic mother.



Presentation 5: In the case of gestational surrogacy, the sperm comes from the partner of the provider of the eggs and the genetics of the child is the same as its parents.

The cryobabies (from the Greek *cryo* meaning “cold”) are actually real cyborgs; the cryobaby is engendered *in vitro*, perhaps even with frozen sperm from an unknown donor. The new technologies of fertilization and gestation revolutionize the traditional family. For example, if the egg donor is the daughter of the woman who provided the uterus, the woman who provides the blood will become the grandmother of the gestated child. In fact, the child will have two mothers, one the supplier of the blood and the other the supplier of the genes.

Chapter 2: The ethnic character of social classes

The importance of the city

In the Communist Manifesto, Marx and Engels wrote that history is driven by class struggle. According to Marx and Engels, the society of classes, developed in the Ancient World as a consequence of the rise of the city, because of population growth, accumulation of property resulting in increasing social complexity. Until that time, society mainly was structured by kinship and governed on the basis of ties of blood and marital rules. In that sense the city could be considered a technological device of social character. Let's see also, what Marxism according to Krader, says about the consequences of the development of the city, a moment during which the political man emerged in opposition to the gentile man of archaic societies:

Morgan attributed the transition of Greek society from the gentile to the civil (political) organization to the period between the first Olympiad (776 B.C.) and the time of the legislation of Cleisthenes (508 B.C.). Marx commented: "He should have said that political here has the meaning "urban" in Aristotle sense, and "citizen" as "political animal". Aristotle's definition of man is that he is by nature, *phyei*, a political animal, a creature of the polis. Marx commented on Aristotle's definition in the *Introduction* to the *Grundrisse*: "Man is in the most literal sense a *zoon politikon*, not only a gregarious an-

imal but one that can become an individual only in society.”¹¹

According to Marx and Engels, the development of the city was the consequence of the transformation of *personal* relationships into *impersonal* relationships. This change meant that the amount of social and cultural items increased to an extreme in which an exceeding of goods demanded new rules of organization and administration. Let see what Lawrence Krader says about the Marxian theory of the development of classes:

The differentiation between the personal and the impersonal relations in the primitive collectivity becomes the greater as the amount of tribal property is increased, and, in keeping with this, as the office of chief becomes more clearly delineated and less undifferentiated. [...] The distinction between the personal and the impersonal or objective, institutional relations becomes increasingly important as the amount of production and ownership of property increases, and offices as that of the chief become more sharply defined.¹²

Summarizing, Marxism considers that the rise of classes depended on various factors, among them the development of the city and the following development of impersonal relationships that impose a more complex division of labor.

Enslaving the stranger

In Antique Greece, the development of classes occurred together

¹¹ Krader, Lawrence: *The Ethnological Notebooks of Karl Marx*; 1974; p.19.

¹² Krader, Lawrence: *The Ethnological Notebooks of Karl Marx*. Studies of Morgan, Phear, Maine, Lubbock, transcribed and edited with an introduction by Lawrence Krader; Van Gorcum & Comp. B.V. –Assen, The Netherlands, 1974; p.10.

with the transformation of a society of clans to a society of regions and nations, phenomena known as synoecism:

The synoecism of the towns and villages of Attica into a political unity under the leadership of Athens may have been a gradual process given the extent of Attica (roughly 1000 square miles)-beginning perhaps in the late ninth century, and completed around the middle of the eighth. The Athenians ascribed the unification of Attica to their greatest hero, Theseus, whom myth linked with his companion, the Dorian hero Heracles (later known to the Romans as Hercules). Theseus' adventures with Heracles, and his solo exploits, such as defeating the Minotaur in Crete and the Amazons (mythical women warriors from Asia) in Athens, were enshrined in Athenian art and literature. In the Athenian account of synoecism, Theseus, the basileus of Athens and paramount chief of Attica, created a political unity by proclamation, abolishing the governments of the other towns and villages and making a single government in Athens.¹³

The *phratries* of Attica were kinship groups consisting of several patrilineal clans; it was a good example of the composite cultural process which moved from the tribe to larger regional unities:

In Attica, as in the rest of Greece, the basic social units-the individual households (*oikoi*)-were grouped into larger clan-like associations: tribes, phratries, and clans. Unfortunately, very little is known about them, especially in their early form. Our best evidence comes from Athens. Every citizen family in Attica belonged to one of four *phylai* ("tribes") and to another

¹³ Pomeroy, Sarah B., Burstein, Stanley M., Donlan, Walter, Tolbert Roberts, Jennifer. *Ancient Greece. A Political, Social and Cultural History*. Oxford University Press, 1999; p. 160-161.

smaller group within their tribe, called a *phratry* (“brotherhood”). Since all the Ionian peoples had the same four tribes, it is assumed that these originated very early in the Dark Age. It is probable that in the early city-state they served as political and military divisions, each tribe, for example, being responsible for furnishing a contingent to the army. The *phratry* may originally have designated a “brotherhood of warriors,” another name for the warrior bands led by Dark Age chieftains that we see in Homer. By the seventh century, however, the phratries had become quasi-official social groups concerned with matters of family and of descent. Membership in a phratry, for example, was the necessary proof that a man was a citizen of Athens; in cases of unintentional homicide, the members of the victim’s phratry were obligated to support the family of the victim, or, if the victim had no family, to take the place of the family in pursuing the case.¹⁴

From this conglomerate of tribes, phratries and clans, develop the castes as a consequence of the enslaving of alien tribes, the barbarous or non-human. The Bible put this very clear:

However, you may purchase male or female slaves from among the foreigners who live among you. You may also purchase the children of such resident foreigners, including those who have been born in your land. You may treat them as your property, passing them on to your children as a permanent inheritance. You may treat your slaves like this, but the people of Israel, your relatives, must never be treated this way. (Leviticus 25:44-46 NLT).

¹⁴ Ibid.

Aristotle's theory of slavery, which is found in Book I, Chapters III and VII of the *Politics* and in Book VII of the *Nicomachean Ethics*, justify this view affirming that the barbarians are slaves by nature:¹⁵

But is there any one thus intended by nature to be a slave, and for whom such a condition is expedient and right, or rather is not all slavery a violation of nature? There is no difficulty in answering this question, on grounds both of reason and of fact. For that some should rule and others be ruled is a thing not only necessary, but expedient; from the hour of their birth, some are marked out for subjection, others for rule. [...] But among barbarians no distinction is made between women and slaves, because there is no natural ruler among them: they are a community of slaves, male and female. Wherefore the poets say, It is meet that Hellenes should rule over barbarians; as if they thought that the barbarian and the slave were by nature one.¹⁶

As slaves, the foreigners were *kinless*, men and women without other identity different from submission, and for whom reproduction never meant the development of family ties, only caste-ties.¹⁷

If the mode of production of Greek antiquity was that of the exploitation of the slave, from what did the slave develop? As we can see the enslaved was the Barbarian, *never the fellow citizen*. Our thesis then is that *the classes are masked ethnic constructions*, which we will denote, with a more appropriate term, as *castes*; social groups with more or less obvi-

¹⁵ My gratitude to professor (emeritus) Rafael Capurro. Steinbeis-Transfer-Institute Information Ethics (STI-IE), Director (2008-2013).

¹⁶ Aristotle; *Politics*: <http://classics.mit.edu/Aristotle/politics.1.one.html>

¹⁷ Garnsey, Peter. *Ideas of slavery from Aristotle to Augustine*. Cambridge University Press; 1996; p.1-2.

ous ethical specific rules governing sexual relationship between their members and the strangers. This is the case of the rules of endogamic marriage, developed in a very earlier stage of socialization. The ethnical character of these castes explains why marriage is not acceptable with individuals of another caste, because to allow such a sexual interchange would risk the identity of each caste menacing the system as a whole. If we are right, the development of castes is a phenomenon derived from the natural expansion of the tribal system and is still the expression of blood ties. Castes are the new complex forms of kinship, the *Cosa Nostra*, the structure that larger and complex societies adopt with the aim of preserving archaicity. Then, the development of castes cannot be seen as the expression of the modernization of society, but as a secondary effect of the modernization process.

One aspect that Marx and the anthropology of his days studied only indirectly is the kind of mechanism that made the transition to Modernity possible. If we accept that the differentiation between the personal and the impersonal was fundamental for the development of artificial relationships, we must find this differentiation already in the early time of mankind. Individualization in a primitive collectivity necessarily increases in direct proportion to the importance of the division of labor. This process could explain the development from a gentile order to an artificial urban order. According to Marx and Engels, the process of division of labor began inside the tribe and in connection to the differences of age and sex and that this division was later transmitted to the modern family:

Marx had written: "Within a family, and after further development within a tribe, there springs up a natural division of labor, out of the differences of age and sex." Engels added the footnote to this, "Subsequent very searching studies of the primitive condition of man led the author [of *Capital*] to the

conclusion, that it was not the family that originally developed into the tribe, but that, on the contrary, the tribe was the primitive and spontaneously developed form of human association, on the basis of blood relationship, and that out of the first incipient loosening of the tribal bonds, the many and various forms of the family were afterwards developed.”¹⁸

While the archaic family seems to have been an indissoluble part of the tribe, the modern family was a miniature of the society of classes, an embryo of every future class development, perpetuating more or less openly the rules of the ties of blood into class society:

The family of classical antiquity is the miniature of the society, but rests, in its monogamous form, upon social institutions which are external to the private group of kin: slaves, domestics, (in large courts, retainers and clients), later, serfs, etc.; therefore, the antagonisms which the family contains in miniature are not generated by the family in the way that they are generated in society, but by the society and then borne into the family. The family as it is here conceived is part of a society either on the verge of development into civilization or already in that status.¹⁹

We can conclude then, that changes to a primary Modernity were associated to the expansion of the tribal family into the city. This urban expansion of the private sphere derived into the society of casts that made possible the development of agriculture, the further development of the division of labor and the development of emerging

¹⁸ The words are from L. Krader from *The Ethnological Notebooks of Karl Marx*: Transcribed, edited and commented by L. Krader. Van Gorcum & Comp. B. V. Assen, the Netherlands, 1974; p. 173-174.

¹⁹ Marx, Karl. *The Ethnological Notebooks of Karl Marx*: Transcribed, edited and commented by L. Krader. Van Gorcum & Comp. B. V. Assen, the Netherlands, 1974; p. 173-174.

rules of property.

Modernization independent of the castes

As we see it, modernization is the necessary consequence of the experience of the embodiment of the world, a process of detachment from the rules of the ties of blood which is irreversible. This is a process initiated during the same period and caused by the same complex causes that originated the society of castes but performed parallel and independently to the castes, as “common experience”. Modernization is another name for the development of artificiality in social life in general, and through the substitution of the rules of blood for artificial rules based on experience and reason. This conclusion has a very important and unexpected consequence, for instance, that the development of the modes of production (as capitalism) and that of modernization *are not the same process*. If it is true that e.g. “capitalism” can be seen as favoring modernization, it is also truth that it is still the expression of a society of castes. As we see it, modernization is a cognitive process, connected but independent, from caste existence; it is growing besides the ties of blood, through language, science and technology, and therefore more or less *besides ideology*. The Marxian model of society according to materialist principles established that the mode of production decides the ideological expression of this society. We believe that it is correct to describe the ideas of a period as the product of the Marxian “mode of production” but with the reservation that cognitive contents are not ideological expressions bound to the interests of the castes. We had earlier condensed this in the expression: the *primacy of knowledge over ideology*. As a consequence of the development of knowledge in all its forms from the times of the agricultural revolution, new artificial improvements opened for new social solutions

making any form of return to earlier times impossible. There is a remarkable Marxist text written by Joseph Stalin in which he indirectly recognizes the independence of the process of modernization from the particularities of the class struggles:

A group of younger comrades have asked me to give my opinion in the press on problems relating to linguistics, particularly in reference to Marxism in linguistics. I am not a linguistic expert and, of course, cannot fully satisfy the request of the comrades. As to Marxism in linguistics, as in other social sciences, this is something directly in my field. I have therefore consented to answer a number of questions put by the comrades.

QUESTION: Is it true that language is a superstructure on the base?

ANSWER: No, it is not true.

[...] Language is not a product of one or another base, old or new, within the given society, but of the whole course of the history of the society and of the history of the bases for many centuries. It was created not by some one class, but by the entire society, by all the classes of the society, by the efforts of hundreds of generations. It was created for the satisfaction of the needs not of one particular class, but of the entire society, of all the classes of the society. Precisely for this reason it was created as a single language for the society, common to all members of that society, as the common language of the whole people. Hence the functional role of language, as a means of intercourse between people, consists not in serving one class to the detriment of other classes, but in equally serving the entire society, all the classes of society. This in fact

explains why a language may equally serve both the old, moribund system and the new, rising system; both the old base and the new base; both the exploiters and the exploited.²⁰

Following this track, Louis Althusser differentiated ideology from science. According to Althusser “ideological” is a “representation of the imaginary relationship of individuals to their real conditions of existence.”²¹ On the contrary, science presents a “true” representation of our relationship to our conditions of existence, whereas ideology can describe things, producing a false relationship to the world. Scientific knowledge arises by means of what Althusser calls the epistemological break, a radical break from the whole previous frame of reference, and the construction of a new problematic.

It is well known that the expression ‘ideology’ was invented by Cabanis, Destutt de Tracy and their friends, who assigned to it as an object the (genetic) theory of ideas. When Marx took up the term fifty years later, he gave it a quite different meaning, even in his Early Works. Here, ideology is the system of the ideas and representations which dominate the mind of a man or a social group. The ideological-political struggle conducted by Marx as early as his articles in the *Rheinische Zeitung* inevitably and quickly brought him face to face with this reality and forced him to take his earliest intuitions further.²²

For Althusser, “science” is a subjectless process which brings to-

²⁰ J.V. Stalin. *Marxism and Problems of Linguistics*. First Published: Published in the June 20, July 4, and August 2, 1950 issues of Pravda Source: *Marxism and Problems of Linguistics*, by J.V. Stalin, Foreign Languages Publishing House, Moscow. Transcription/HTML Markup: M. and Charles Farrell. Online Version: Stalin Reference Archive (marxists.org) 2000.

²¹ Louis Althusser from *Cultural Theory: An Anthology*, Redigerad av Imre Szeman, Timothy Kaposy; p. 212. Google books online.

²² Louis Althusser from *Cultural Theory: An Anthology*, Redigerad av Imre Szeman, Timothy Kaposy; p. 212. Google books online.

gether and activates undisputed cognitive results. The individuals who actually perform the scientific production cannot claim to be subjects of their practice, but mere *bearers* of this praxis. However, neither Stalin nor Althusser come to a final explanation of the independence of knowledge from class struggle and from ideology. A successful explanation implies the acceptance that the modernization process of the social relations in general *is prior* to the Marxian “class struggle” and that modernization is an irreversible process outside the social ideological corpus, namely an expression of the Civil Society.

The importance of language to the modernization process

The development of a database of names and the incidence of this classification process in the development of language in general, has been the most important factor in the modernization of society. Names as indexes were a step into an artificial identification independent of space and time references. There is obviously a connection between the development of classification and identification of persons and things with the development of written language in general. In the transition to modernity, names loosed their magical power and could be used as tools of classification outside the spontaneous meeting of the group. Thus with modernity, society created indexes or “databases” as social mechanisms of written memory, hidden behind linguistic structures as e.g. the “family name”. The process required the division of the presentation of the world in independent cognitive objects, as well in specific designations for these objects. Ordering implies both individualization and concretization and because it is connected to social and political power it must be handled carefully. Order is necessary when social change makes the surrounding reality blurred and impossible to live in. The spontaneous way to do this is

following the line of the origins, connecting the individual to their parents, to their clan, to their region, to their role in the general division of labor. The name of the individual in the public environment is an abstract reference to a common structure. Hence, it becomes a necessity to register (memorize) these names to establish a point of organizational reference. However, when the changes become too dramatic, the traditional and spontaneous organizational means were not enough. That was the starting point of a modernization process in which order was created artificially. However, the new social order was developed interwoven with traditional order, adopting new forms that were compatible with existing archaic customs. The study of the evolution of the names, tells us the transformation process whereby the individual evolves in the private sphere, or in the public sphere. Emmanuelle Hubert presents a study of the development of this process in a study of the development of surnames on France after the 12th Century; it tells us that the first surnames were not in principle hereditary, but the situation was gradually changing from the 12th Century when the development of registers and other forms of social documentation began.²³ The use of the name to identify a family (surname) is established in France in the 14th century. The most common surnames may be gathered in groups as they originated in references to the place of birth, profession, or any other occupation of the individual. On the first group can be said that the reference to the place of origin, emerges as a natural consequence, at a time when cities start to grow. The loss of the links that remain attached to the individual to their place of origin is offset by the nominal reference to these places. Other surnames have their origin in nicknames or names that change with the translations to other languages and dialects. The pas-

²³ Emmanuelle Hubert. *Origine des Noms de Familles*. 1981. Editions Famont; p. 8.

sage of a one-to-one society to a many-to-many society results in another important consequence of cognitive character. The accumulation of different families inside the dominium of the city make necessary the development of mechanisms to distinguish individuals with the same name with surnames following patronymic or matronymic rules, developing occupational surnames, locational surnames, nicknames, etc. However, this new complex identification process did not dissolve the original ties of blood of the individuals; on the contrary, these were rules that validated the original ties of blood in a much more complex reality. The ties of blood disappeared as immediate recognition to become tools of indirect recognition through language in general; of course the surnames as the family name, through a geographical reference, to a professional engagement, etc. but also as the idiomatic properties of different linguistic regions.

It seems as archaic societies can only exist as small groups inside of which everybody knows each other. In this circumstance the name of an individual was unique and laded with mythical associations. Let us see Levi-Strauss' description of the importance of the proper names among the Nambikwara. About this Lévi-Strauss wrote:

The Nambikwara [...] are not allowed, for instance, to use proper names. To tell one from another we had to do as the men of the line do and agree with the Nambikwara on a set of nicknames which would serve for identification. Either Portuguese names, like Julio, Jose-Maria, Luisa; or sobriquets such as Lebre (hare), or Assucar (sugar) [...]. One day, when I was playing with a group of children, a little girl was struck by one of her comrades. She ran to me for protection and began to whisper some-thing, a "great secret," in my ear. As I did not understand I had to ask her to repeat it over and over again. Eventually her adversary found out what was going on came

up to me in a rage, and tried in her turn to tell me what seemed to be another secret. After a little while I was able to get to the bottom of the incident. The first little girl was trying to tell me her enemy's name, and when the enemy found out what was going on she decided to tell me the other girls' name, by way of reprisal. Thenceforward it was easy enough, though not very scrupulous, to egg the children on, one against the other, till in time I knew all of their names. When this was completed and we were all, in a sense one another's accomplices, I soon got them to give me the adults' names too. When this was discovered the children were reprimanded and my sources of information dried up.²⁴

While Lévi-Strauss tried to make a point appealing to the archaic innocence of the Nambikwara's culture, Derrida commented this text emphasizing that proper names are the appendage to a deeper social structure of order and power.²⁵ Derrida made a defense of this early state of language as a hidden manifestation of writing that includes the Nambikwara's culture into the standard of modern civilization moving the origins of modernity back to an earlier period.

²⁴ Claude Lévi-Strauss. *The Savage Mind*. London 1962; p. 279; quoted by Derrida, J. in *Of Grammatology*; p. 111.

²⁵ Derrida, J. *Of Grammatology*; p. 111.

Chapter 3: From Economic Value to Organizational value

Marx and the moral depreciation of technologies

The discourse about technologies in any author is always a discourse about the development of artificiality in the process of modernization; and Marx is not an exception. For Marx, technologies are either tools or machines and both are things. He was interested in the study of their intrinsic value and of their relationship to labor in the capitalist production process. He recognizes that the productive cycle of a machine depends first on two physical factors: 1) erosion by use and 2) corrosion by abandonment:

The material wear and tear of a machine is of two kinds. The one arises from use, as coins wear away by circulating, the other from non-use, as a sword rusts when left in its scabbard. The latter kind is due to the elements. The former is more or less directly proportional, the latter to a certain extent inversely proportional, to the use of the machine.²⁶

For Marx, the productiveness of a technology is “inversely proportional to the value transferred by it to the product. The longer the life of the machine, the greater is the mass of the products over which the value transmitted by the machine is spread, and the less is the por-

²⁶ Marx, Karl. *Capital ; A Critique of Political Economy*. Volume I Book One: The Process of Production of Capital. Chapter 15: p. 273.

tion of that value added to each single commodity.”²⁷ We discover here some inconsequence; Marx acknowledges the transference of some physical factor from the technological device to the product, which is clearly wrong, because erosion and corrosion can never enter into the product:

In the first place, it must be observed that the machinery, while always entering as a whole into the labor-process, enters into the value-begetting process only by bits. It never adds more value than it loses, on an average, by wear and tear.²⁸

When Marx talks about “transference of value” he is talking about physical erosion by use and corrosion by misuse:

By wear and tear (moral depreciation excepted) is meant that part of value which the fixed capital, on being used, gradually transmits to the product, in proportion to its average loss of use-value.²⁹

However, Marx recognizes also a third and “moral”³⁰ factor that depreciates the productivity of a machine:

But in addition to the material deterioration, a machine also undergoes what we may call a moral depreciation. It loses exchange-value, either by machines of the same sort being produced cheaper than it, or by better machines entering into competition with it. In both cases, be the machine ever so

²⁷ Marx, Karl. *Capital; A Critique of Political Economy*. Volume I Book One: The Process of Production of Capital. Chapter 15: p. 272. <http://www.marxists.org/archive/marx/works/1867-c1/ch15.htm>

²⁸ *Ibid.* p. 264-265.

²⁹ *Capital*. Volume II; Chapter VIII ; p. 100.

³⁰ Marx uses the term “moral” in the modern sense of “cultural”. The term is very common from the 14th Century and after, meaning “pertaining to character or temperament”, from Latin *moralis* “proper behaviour of a person in society,” literally “pertaining to manners.” (Online Etymology Dictionary).

young and full of life, its value is no longer determined by the labor actually materialized in it, but by the labor-time requisite to reproduce either it or the better machine. It has, therefore, lost value more or less. The shorter the period taken to reproduce its total value, the less is the danger of moral depreciation; and the longer the working day, the shorter is that period. When machinery is first introduced into an industry, new methods of reproducing it more cheaply follow blow upon blow, and so do improvements, that not only affect individual parts and details of the machine, but its entire build. It is, therefore, in the early days of the life of machinery that this special incentive to the prolongation of the working day makes itself felt most acutely.³¹

Observe that this “moral depreciation” of a technology is referring to the cognitive condition of human technological capacities at some point of history and not to any physical property. According to Marx, a machine bears the sign of a cognitive knowing-how which is short-lived. This knowledge cannot be measured in reference to any physical property and has nothing to do with the tears and wears of a device. If some measurement can be performed it must be the measurement of cognitive capacities expressed through praxical applications. From the point of view of the 21st Century, is easy to conclude that the problem with Marx’ view is that it is too narrow and that the only essential depreciation of value which is interesting for a theory of labor value is that of “moral depreciation”. Consider for instance the technology of a computer program; because it is not a

³¹ Op.cit. p. 273. In German: “Neben dem materiellen unterliegt die Maschine aber auch einem sozusagen moralischen Verschleiß.“ *Das Kapital*, Dietz Verlag Berlin; 1969; p. 426.

physical thing, it will not erode or corrode; at the other hand, it would be its “moral life” the only intrinsic factor that decides its value. Considering only the moral depreciation of value, the productiveness of e.g. a computer program, depends on the time during which it is *irreplaceable*. In my terms, during that time it is a “whole technology” otherwise it would be a “broken technology”. To have full value, the computer program must be unique in the market. In other words, the condensed work power that it contains depreciates as soon as a contender program *works better* (meaning with “better” that it does the same work in a shorter time). Because we know that physical energy cannot be transmitted into the product, the question is if it is some transference of value, and in that case, which kind of substance is this and how is it transferred. Marx measurement is based in hours of work, the hours of the life of the persons involved in the production process. However these hours cannot be transferred to the product either. The product is not a time-container. The consumed time is paid out time for the worker and for the society in general but not for the device. For instance, considered as non-physical thing, the computer program can exist eternally. We believe that the correct substance of this created value is *order* and *information*, two concepts that were not developed at the time of Marx.

Marx epistemology

During the years of Marx’ intellectual development, the consequences of the Kantian revolution and its differences with the precedent Cartesian philosophy were not definitely established. It was necessary to wait until the work of Husserl to get this difference clear. As a consequence of this, Marx’ thought oscillates sometimes between the empiricism of Natural science (Marx and Engels were clearly influ-

enced by the epistemology of Natural Sciences) and the embryonic and still dualistic phenomenological methodology that they could found in Kant and Hegel. For that reason, we believe that some of Marx' ideas about labor value must be revised. One is that we would call the "container theory of value" according to which he understood the condensed labor in a commodity as *residual static energy* from a past time. The labor value of a commodity for Marx is inside the commodity which acts as an energy-container. A second idea to be revised has to do with Marx' own contribution to the field of philosophy: the concept of *praxis* or "knowledge in action". Marx distinguished between "commodity" and "technology" and did not see that *any commodity is a technology* and therefore, that they are both the medium and the consequence of praxis in labor. A theory of intrinsic value then must be a dynamic theory of value liberated in action. A consequence of this is that in the labor process, only cultural products are involved to produce new cultural products; no matter if they are machines, tools or *materia prima*. For example, both "air" and "water" are cultural products from a phenomenological point of view. Being phenomenologically consequent, there are no "natural", pure objective items outside knowledge and it is therefore impossible to differentiate "intrinsic labor" from "labor as action proper". If a machine does the work of 200 men, then, there must be as 200 men "working inside the machine". The labor value is not "saved or condensed value", is always "active value". Marx' mixing of different perspectives of analysis, changing unexpectedly from empiricism to a proto-phenomenology and vice versa, affects also other aspect of his theory as the understanding of concepts as "exchange", "value" and "price". For Marx "value" is sometimes a *natural magnitude* (empirical fact) and sometimes a *moral multitude* (cultural phenomenon). In some part of Marx' discourse, his materialism become physicalism. This misunderstandings

need to be corrected by introducing the definition of labor value (and action value in general) as *organizational value*. We define the term “order” as the opposite of information from the point of view of probabilities; for instance an act with a very high informational value is “unlikely” and has a very low organizational value and vice versa. Notice that one of the most important consequences of the modern use of the term “information” had some importance to Marx materialism:

The mechanical brain does not secrete thought “as the liver does bile,” as the earlier materialists claimed, nor does it put it out in the form of energy, as the muscle puts out its activity. Information is information, not matter or energy. No materialism which does not admit this can survive at the present day.³²

We can add to the words of Wiener that neither the mechanical brain secretes order. Rafael Capurro introduced a very interesting connection between the technological meaning of information and the phenomenological field of philosophy³³. According to Capurro, information is *fragmented intentionality*. Capurro understands the modern age of informatics as postmodern phenomena, which can be found already in the philosophy of Husserl and Heidegger. Another important difference is that communication of information leaves behind the opposition between object and subject and substitutes it with intersubjectivity and context; in the new reality the informational content is not attached to a subject. Indirectly, the words of Capurro decide the nature or “order” as defragmented information: that is, *intentionality*.

Let us here, study closer which kind of “substance” is labor. It cannot be considered a natural substance, as if it were natural “ener-

³² Norbert Wiener. *Cybernetics*, 2nd edition, p.132 . MIT Press, 1961.

³³ Capurro, Rafael. *La Hermenéutica y el Fenómeno de la Información*. Cuaderno de psicoanálisis freudiano 8, 1987.

gy”, because the physical energy involved in the physical act of labor is completely consumed in the labor act. If some “labor energy” can be found into the product of labor, it cannot be of a physical nature. We can conclude then, that the physical and the “moral” spheres of reality are independent from each other. If labor cannot be a physical substance, the only open alternative is that of considering it as *order*. Let us be more specific because the concept of “order” is based on the concept of “information” and this is used in different contexts. It is used in connection with natural sciences and technology with a specific technical signification and in social and human sciences with among others meanings: advise, reportage, testimony, communication, explanation, advertency, inquire. The term comes from Latin and originally meant “to form” something. It can be found already in Publius Vergilius Maro and after him in Augustine and Thomas Aquinas. Later it appears again in Descartes and the new philosophy showing already the two main different meanings, at one hand, “to form matter” and to the other hand “to communicate something to someone”. In our times, the term became fixed in association to the theoretical and technological developments in the fields of mathematics, communication technologies and computer science and to the names of men of science as Norbert Wiener, John von Neumann and Claude Elwood Shannon.³⁴ Especially important is the book by Shannon *A Mathematical Theory of Communication* from 1948. Shannon distinguished the meaning of the term “information” from that of the term “meaning”. According to Shannon, “information” does not need to be meaningful. “Information” to Shannon is the measure of a “difference” between signals. The binary difference between “yes” and “no” is the

³⁴ A complete study of the history and the definitions of the term can be found in: Capurro, Rafael and Hjørland, Birger: *The concept of Information*. Annual Review of Information's Science and Technology. Ed. Cronin. Vol. 37, 2003.

simplest of all possible contents of information. This measure defines a binary unit or “bit”. The richer the amount of alternatives, the richer will be the content of information in the message. That means that each human act is in fact a choice between at least two alternatives. From our perspective, the difference between acting in general and communicative acting is irrelevant therefore both are ontological the same phenomena. We will generalize the concept of information understanding that information is the opposite of “organization” and/or “order”. Any form of labor then, means the creation of information as *order* and indirectly, means the reduction of information in human life.

Let us also distinguish between the informational value as the relative measurement of two qualities or also the *ratio* between *multitudes*, from an “empirical value” which would be the consequence of the *rate* of *magnitudes*. A *ratio* is a multiplicative relation between two natural numbers different from 0. We are talking about “two to three”, “4 to 10”, “6 to 5”, etc. For example, if in a group of people there are 18 adults and 27 children, we will say that the ratio between the number of adults and children is “2 to 3”, i.e., that “there are 2 adults for every 3 children”. It is necessary then, to distinguish between the concepts of *ratio* and *rate*. The concept of “rate” refers to the relationship between the part and the whole. In the example above, the number of adults (18) will be the part while 45 ($18 + 27 = 45$) will be the whole; the rate then will be $18/45$. Marx starts his study of exchange between items considering them first as *ratios*, but then he changes to consider them as *rates*. The jump from a proto-phenomenological perspective to an empiricist perspective makes the “ratio” a “rate”. From the consideration of “proportions”, Marx jumps to a relation between the “part and the whole”.

The relation between organizational value and price

Our standpoint is that there is no order *in general*; organizational value is always *concrete and unique*. It is true that we can measure order, but as the ordinal numbers expressing the order and turn of choices, never as cardinal numbers as it were a homogenous substance. Because organization is not a substance proper, it cannot be estimated using differential calculus. Because organization is saved as forms, structures, designs, it is found in artifacts and services, in methodologies and technologies. The social organizational value needed to produce an item is therefore in the choices made to produce it. By the same reason, if the social organizational value has been transformed into an artifact by the acts of workers, the organization value of the produced item is never included as a part of the product's physical manifestation. Organization value is always *in the choices made* and nowhere else. That means that the organizational value of an act or an item follows the flow of choices that a society makes. It is possible to see the process of valorization from three points of view: the point of view of the producer, the point of view of the market and the point of view of the consumer. Let us first see the valorization process seen *from the point of view of production*. In this case the organization value is produced by the actual choices of an act. The act produces organizational value which is moved to the artifact during the embodiment process. If the artifact does not exist, it is created by this organizational value. Let us secondly, see the valorization process seen *from the point of view of consumption*: if the artifact does exist—as when we buy an item—the organizational value moves to the item as well, but not to create the item, but to sum the new value of the act of consumption into the produced organizational value of the item. That means that consumption increases the value of the item proportionally to its strength. Finally, seen *from the point of view of the market*, each act of demand increases the organizational value of the product; this is what we call the

price of the item. The “market” works according to this principle; first, *for one agent* is valid that finding a *rare* item demands the investment of many decisions (much more organizational value) with the consequence that the price of the item will increase. On the contrary, if the item is very common, it would be necessary a few decisions (little organizational value) to find it and the price will be low. At the other hand, when the *agents are many* the same happens but with larger consequences; if many actors search for the same item, much organizational value moves to the item, increasing its organizational value proportionally. Organizational value depreciates with time in almost the same manner as an item depreciates in the market; the intrinsic organizational value of an artifact does not disappear with the appearance of a newer and better device of the same kind. This organizational value is intrinsic to its form and will be the same forever; however, it loses the interests of the agents of the market and then depreciates in value. The movement of the demand to newer devices, changes the organizational value of the old item in the market. The depreciation value of an old technology is caused then by an uninterested market in which an increasing number of consumers move their decisions (organizational value) to the new item.

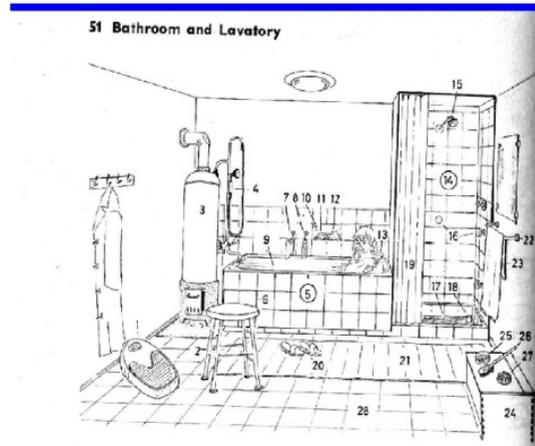
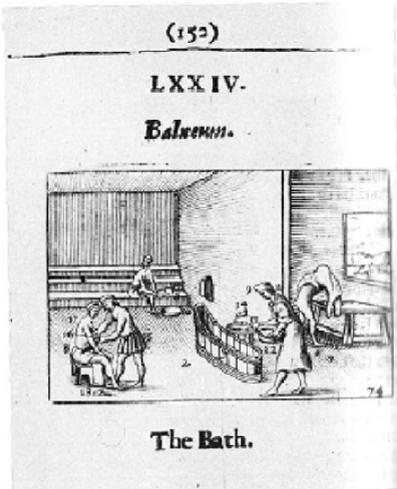
Agnumetric value as a measure of archaicity respective modernity

The organizational value of a task produced by labor and measured through the *choices* involved in the global process is *absolute* for a specific historical period. By the development of knowledge and experience, the number of options necessary to produce the task diminishes and with it, diminishes the absolute value of the task. The comparison of the earlier and the actual absolute values give us the *rel-*

ative value of labor. This relative value is the measurement of *modernization*. In an earlier work, we have studied the phenomenological world of the technologies that depreciate in “moral value”.³⁵ I have denoted these technologies as *broken*. We will now define as *agnumetry* the methodology that permits us measure relative labor in an artifact. The term *agnumy* is the Greek word for “break”.³⁶ The measurement of this degree of brokenness could open to a comparison of different cultural environments with each other. Let us study the organizational value contained in everyday tasks. For example, if to perform a certain task we use today 10 artifacts and during the Renaissance to perform the same task we used only 5 artifacts, it is obvious that contemporary acts demand additional organizational value. Comparing the archaic organizational value (AOV) with the modern organizational value (MOV), the *relative brokenness* of the renaissance milieu with respect to the contemporary milieu will be determined with good accuracy. We say that the *agnumetric value @* of the particular milieu of the Renaissance, with respect to a particular contemporary milieu with respect to a certain task/environment can be determined. Because performance implies choices, (AOV) and (MOV) can be expressed as binary digits or “bits”.

³⁵ Flores Morador, Fernando. *Broken Technologies. The Humanist as Engineer*; Lund University, 2009.

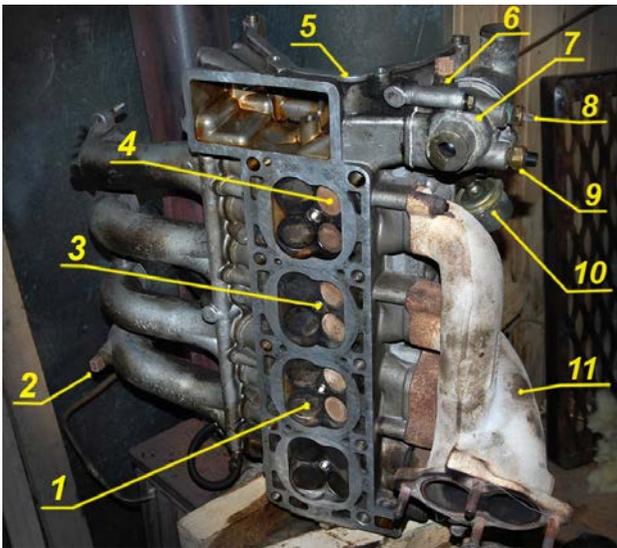
³⁶ I am indebted to professor (emeritus) Rafael Capurro; Steinbeis-Transfer-Institute of Information Ethics (STI-IE) for the clarification about the uses of the term “agnumetry”.



Presentation 6: The bath now and then. To the left the “bath” according to Amos Comenius, *Orbis sensalium pictus. Den synliga werlden. Le Monde Visible. På Latin, Svenska och Fransyska.* Stockholm, 1796; and to the right, the “bath” according to the *Duden Bildwörterbuch*, 1960.

Amos Comenius presented a bath from the 18th Century which shows 18 artifacts (Presentation 6) and it can be compared to a bath presented in the *Duden Bildwörterbuch*, from 1960 in which 28 artifacts are numbered; in that particular comparison, the agnumetric value results from comparing 18 (AOV) with 28 (MOV). Unfortunately, in real situations, the things to be counted are not previously numbered as in our examples. So, how to measure the things around us? The answer is important, because the world of things consists on parts and these parts are also things. In any case we must avoid making the same mistake as the classics of economics considering the everyday world as a continuous substance. Everybody knows by experience that some of these parts can be easy listed as “things” but most of them are in a grey zone. We can say that the numbers of parts of the things of the

world are much more than anybody could count; they are therefore “transcendent” in a pragmatic sense of the word. The solution could be to count only “wholes” and never “parts”, or to define what parts can be counted as “parts” and which not. With other words, the solution must be pragmatic but the results can be usable in any case if the criterion used is applied with consequence. There is one case in which the parts must be counted, and that is the case of the machine.



Presentation 7: the complexity of a machine with respect to the tool. From *Wikimedia Commons*, 2008.

The essential difference between a tool and a machine is that the machine consists of parts working together. So, we must expect a very high @ value comparing an archaic procedure that uses tools with a modern procedure that uses machines. We notice that the evolution of praxis from archaic to modern solutions, involve some times more artifacts than before, as in the case of the machine with respect to the tool, but in some other cases, “progress” implies the engagement of less artifacts than before. For instance, to take care of your own body today demands a lot more artifacts than in earlier ages. But to e.g. be

dressed fashionably today, may involve fewer artifacts than during the 18th Century. In this last case, the rise of modern world has simplified the lifeworld reducing their redundant information and reinforcing the organizational value. But, why enrich sometimes and simplify in other cases? We discovered that in fact, *it is the same procedure* in both of the situations. In the case of enrichment, modernization implies the substitution of one or more parts with a complex item. For example, in the case of the machine, modernization implies the substitution of one or more tools by a machine. So, the first moment is that of simplification of the whole technological environment by substituting one point in the structure by a complex item. The phenomenon enlarges the amount of parts but at an incongruent level; with other words, *in another dimension*. However, with the introduction of complexity in the form of a machine, the whole process becomes enriched by the *aggregation of a new dimension* to the original one.

Chapter 4: Organizational value and economics

Operative organizational value

Technologies are the expression of knowledge in general and knowing-how in particular. They are the consequence of a sum of choices materialized as organizational value. These technologies facilitate the realization of useful acts which in their turn are also built on choices materialized in other organizational values as well. Each act generates organizational value, and how we want to describe it depends on the chosen point of view for the analysis. We can say that an item is the expression of *production*, but also it is possible to say that the consumption of this item *also produce* organizational value. Let us ask now which is the existing relationship between the process of creating value and that of consuming it? *We can say that the organizational value inherent to the production of a technology tends to be higher than the organizational value of consuming it.* This *imbalance* is an historical law of the development of knowledge and experience. We assume that during the first moments of civilization, *these two values were close to each other.* This correspondence in the amount of organizational value between producing and consuming is still valid for *spontaneous acts* performed with simple technologies. The organizational value of the production of e.g. a stone-knife is very similar to the organizational value inherent to use it.

For example, flint was used in the manufacture of cutting tools during the Stone Age. The cutting artifacts were produced by splitting the stone into thin, sharp fragments. This producing-splitting-act and the using-cutting-act of using the artifact in everyday life were similar acts from the point of view of their produced and consumed organizational value. With other words, to create it and to use it demanded approximately the same amount of choices.



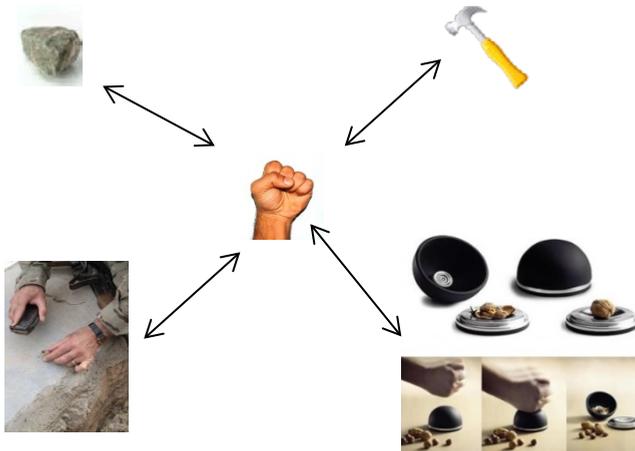
Presentation 8: A sharp tool from the stone Age made with flint.

A very different case is that of e.g. a computer; the organizational value necessary to its production is very much higher than the organizational value necessary to use it. The more modern a technology is the greater is the difference between the production organizational value and the organizational value necessary to use it. We will call this difference the *operative organizational value*. Comparing two technologies, the one which is more operative will then be the more modern.

Perpetual technologies

From the point of view of the @-value, some technological environments are *resistant to* modernization. For instance, the environments of the archaic knife, the archaic sax, the archaic nail, the archaic hammer, the archaic axe, etc., all these - in spite of being very old - are still

the same and therefore in a numeric comparison with their contemporary variants, their @-value must be close to 1; for example, the case of the technologies of the “fisted hand” (Presentation 9):



Presentation 9: the eidetic explosion of the fisted hand.

It is as if some technological environments are timeless, once created, they can only be repeated. It is possible to enrich this kind of technological environments (e.g. weaving, fishing, hunting, cooking, etc.) but is not possible to simplify them.

Becoming a commodity

What can we say about “broken labor”, the labor of amateurs, housewives, children, disabled, and other under-standard producers? It is possible to say that broken labor creates “broken organizational value.” In other words, broken labor creates organizational value but in quantities that are lower than the social standard of the commodity.

Higher organizational contents transform acts and act-products into commodities. Marx describes the moment in which a lower organizational device, produced to satisfy a necessity in a non-competitive context, changes to compete with other similar artifacts in a wider context becoming a commodity. The artifact is changing to “something transcendent”, in fact to something that express a higher organizational level.

The form of wood, for instance, is altered, by making a table out of it. Yet, for all that, the table continues to be that common, every-day thing, wood. But, so soon as it steps forth as a commodity, it is changed into something transcendent. It not only stands with its feet on the ground, but, in relation to all other commodities, it stands on its head, and evolves out of its wooden brain grotesque ideas, far more wonderful than “table-turning” ever was.³⁷

Marx expresses this organizational change as enigmatic: “Whence, then, arises the enigmatical character of the product of labor, so soon as it assumes the form of commodities? Clearly from this form itself.”³⁸ Further, the higher organizational character of an item (which enriches the standard of a device making it a commodity) gives it according to Marx a *fetishistic* character:

This I call the *Fetishism* which attaches itself to the products of labor, so soon as they are produced as commodities, and which is therefore inseparable from the production of commodities. This Fetishism of commodities has its origin, as the foregoing analysis has already shown, in the peculiar social

³⁷ Marx, Karl. *Capital; A Critique of Political Economy*. Volume I Book One: The Process of Production of Capital. Chapter 1: Commodities. <http://www.marxists.org/archive/marx/works/1867-c1/ch01.htm#S4>

³⁸ Ibid.

character of the labor that produces them.³⁹

For the neoclassic economist Carl Menger the organizational value of a broken commodity achieves the level of commodity when it not only has a causal connection to our needs but also, when it can be directed to satisfy these needs. In his *Principles of Economics*, Menger says:

Things that can be placed in a causal connection with the satisfaction of human needs we term *useful things*. If, however, we both recognize this causal connection, and have the power actually to direct the useful things to the satisfaction of our needs, we call them goods. If a thing is to become a good, or in other words, if it is to acquire goods-character, all four of the following prerequisites must be simultaneously present: 1. A human need; 2. Such properties as render the thing capable of being brought into a causal connection with the satisfaction of this need; 3. Human knowledge of this causal connection; 4. Command of the thing sufficient to direct it to the satisfaction of the need. Only when all four of these prerequisites are present simultaneously can a thing become a good. When even one of them is absent, a thing cannot acquire goods-character, and a thing already possessing goods-character would lose it at once if but one of the four prerequisites ceased to be present.⁴⁰

So, according to Menger, it is a very high demand of knowledge and control in the process the factor which transform a familiar product into a commodity. Menger distinguish two kinds of commodities: *material* and *useful human actions*.

³⁹ Ibid.

⁴⁰ Menger, Carl. *Principles of Economics*. The Ludwig von Mises Institute; 2007; p.52.

It has been pointed out several times by students of law that our language has no term for “useful actions” in general, but only one for “labor services.” [...] If, as is true of customer good-will, firms, monopoly rights, etc., these useful actions or inactions are of such a kind that we can dispose of them, there is no reason why we should not classify them as goods, without finding it necessary to resort to the obscure concept of “relationships,” and without bringing these “relationships” into contrast with all other goods as a special category. On the contrary, all goods can, I think, be divided into the two classes of *material goods* (including all forces of nature insofar as they are goods) and of *useful human actions* (and inactions), the most important of which are labor services.⁴¹

This remark permits us to distinguish between two levels of useful actions depending on the organizational level of them. Some are only “helping hands”, made by friends or family members, others must be remunerated because their organizational quality. To become a commodity then, the produced artifact has to fulfill two conditions: first it has to be produced outside the family level of needs and wants in an amount of units that can satisfy a larger group of persons; secondly it has to achieve a level of quality which can be acceptable even by persons that are not members or friends of the own family; these are the conditions demanded to a tentative artifact to achieve the commodity status of a “whole” technological device. However, before becoming a commodity the artifact needs to exist as a *broken* one, as a *tentative* and more or less *fruitless* project. In this sense to cultivate potatoes at the family backyard is family labor (producing non-commodities) as long

⁴¹ Menger, Carl. Op cit. p. 55.

as the organizational level of the production is small. On the contrary, if the quality of order in the labor process rises to a level that work produces an amount of potatoes that surpasses the needs of the family, the family backyard's production becomes business and the potatoes become commodities. Of course both the *quality* of the potatoes and their *quantity* are relevant to decide the technological level of the labor process. However, all this *knowing how* configures the organizational level of labor in general and of human acts in particular. Another example could be the following: a family member can take care of a sick member of the family without being a health professional. At home it is possible to be a practitioner of folk medicine (including magic) without being a licensed medical doctor. But if this praxis shall be applied at the whole society and it is intended to be compared as a way to earn money, you need a social license according to the standards of up-to-date technologies to practice medicine. In other words, you have to *dock to the social corpus* and the organizational level of the performance has to achieve some social quality standards. Transcribing family labor to the social level as organizational content, gives us some explanations. When family labor is competing in an open market, it has a lesser organizational rank in society and has therefore the lowest salary standard. To work as e.g. a "house keeper" does not differ so much from the work at home; it demands the same level of knowledge and experience.



Presentation 10: The *scullery maid*.
Oil painting by Jean-Siméon
Chardin. (Wikimedia Commons).

These jobs fit in the category of *non-qualified* and are usually announced, with the label of “no previous experience is needed”. It is not difficult to trace these jobs in history; they have almost been the same situation throughout time, from the slaves of Antiquity to the modern house keeper of the 20th Century. We can conclude that our concept of “operative organization” can also be applied to the quality of human acts. If the training needed to perform some acts can be reached spontaneously at home, the operative organization of this kind of knowing-how will be low. Conversely, higher education creates skills with a high operative value.

Multistability and the technologies of exchange

Philosophers of economics describe two kinds of values: use-values and exchange-values. This dualistic description of the ontological nature of value has become a cliché and is present in any analysis of economic value since the time of Aristotle. We think that this description of the nature of value is insufficient. We assume that economically speaking, any act or item is mainly productive or consumptive. In a productive act, something is produced by someone; it can be another act or it can be an item. The produced act or item is concrete, has a form, structure and use-value; all this expressed as crystalized order. The identity of this act or item is supposed to be fixed once for all. However, when this act or item comes to the market, it loses its particularity showing instead its phenomenological multistability.⁴² The original use-value disappears into a plurality of use-values, becoming a multiuse-value. Conclusively, we say that because the phenomenological multistability of an act or item, any use-value becomes a multipurpose-value. In other words, the use-value is an individual property of the productive act that disappears as soon as the produced act or item comes to the social sphere (the market). This multiuse-value is what makes possible the exchange of acts and items. Because the use-value that is undetermined transforms into a multiuse-value, it becomes congruent with the continuous sphere of money that is in itself the paradigmatic expression of the multipurpose item. If we then want to measure the labor value of a produced act or item, we must assume that the labor value of an act or item breaks in parts as their use-identity does in the market. As a consequence of this, the amount organizational value (productive value) of the produced act or item will not be equal to the organizational value (consumptive value) of the so-

⁴² Don Ihde discovered an important particularity of the process of developing technologies which he named *multistability*. He explains multistability as the phenomena in which the “same technology takes quite different shapes in different contexts.” Don Ihde. Janus Head: “Technologies—Musics—Embodiments”: <http://www.janushead.org/10-1/Ihde.pdf> p. 13.

cial multipurpose act or item. Instead, this exchange-value will be determined at the market. The consumer will add the necessary new information value that converts the original act or item in a (consumed) new act or item. For example, if someone buys a funnel to be used as a megaphone, the buyer will add the organizational value of a megaphone to the organizational value of the funnel. This new organizational value will coexist with the original one without ever being the same. It is then obvious, that the amount of organizational value added to an act or an item in the market, makes this act or item richer than the original. Further, that means also that communicating values through exchanges increases the total amount of organizational value in society, or in other words, the market enriches social life in general. Of course if the demand of an act or item does not exist –and that means that there will be no acts of consumption of this act or item at all- the price of it will be zero. In that case the multiuse-value will be the same as the productive use-value.

Part II: Cyborg Perspectives

Chapter 5: The Consumer Society

The Crisis of Historical Materialism

The meaning of any social theory is to provide a framework for political action. For decades, the obvious theoretical reference for the activists of the “left” around the world was provided by the ideas of Karl Marx. But since 1989, as a consequence of the collapse of the Soviet Union, the conviction that the Marxist model became obsolete was established. The attraction of the Marxist theoretical frame resided in the richness and depth of its interpretations of history, ideas that made possible to understand phenomena that were seemingly disconnected: politics, economy, ideology, etc. Let us here discuss some of the reasons for the crisis of the Marxist model. As we have shown above, the Marxian metaphor of the “social building” for example, recognized an economic infrastructure that acted as a structural base and as the support of a legal and a political sphere considered as “superstructures”, the epiphenomena of the class struggle. As a result of this metaphor, *there was not place in that metaphor available neither for science, experience and knowledge, nor for language.* This had already being targeted by Stalin (language) and by Althusser (science, experience and knowledge). Marx defines the capitalist, as the economic agent who owns the means of production and hires labor-hours from free workers. But Marx said nothing about the fact that to be a capitalist, the agent must know how *‘to do capitalism’*, that specific experiences and knowledge are necessary to perform the job of a ‘capitalist’. The capitalist, as the carpenter, is a technician; his knowledge and experience belongs to the culture of a social group (which historically speaking is

an *ethnic group too*) that developed this set of technics. ‘Capitalists’ in the technical sense existed since the times of the development of usury. Because of that, Aristotle distinguished between two fundamental forms of administration of values, one the ‘economic’, referring to the administration of the household, the other the ‘chrematistic’, referred to the ‘art of making money’. All the technical activities are performed with the *power* derived from the *knowing-how* proper for the specific domain of the activity. Of course these technical capabilities are inherited, are transmitted from parents to children through generations and have therefore an ethnic origin. Marx did not notice that *class struggle is regulated rather through marriages than through political confrontations*. Consequently, in-between the Master and the slave, you will find an army of ‘bastards’ multiplied as patrons and clients: soldiers, politicians, priests; from the early times of the first cities to feudalism and then to capitalism. Blood ties relate all of the ruling classes; they belong to the same *large caste of those who control each specific variant of knowing-how*. On the other hand, we have *those who lack all practical knowledge*, who are distinguishable only as “the masses”. This larger group originates when the modern city emerged from the conglomerate of archaic agrarian tribes and the division of labor condemned them to perform brutalizing activities. It is very much revealing the fact that slaves belonged always to foreign ethnicities. With time, the slave became a serf and later as peasants emigrated from the countryside to the cities to work for the capitalist becoming the proletariat. In our times, a new transformation is taking place; today the proletariat and the capitalist, and in general all the social groups of contemporary society, are transformed into *consumers* and always in some aspect to ‘profanes’ in a world of ‘experts’. The struggle of the slave, the serf, and the proletarian, was to conquer a place in culture, as a means to social power, reducing with this the cultural distance to the empowered castes; however, in our

contemporary society, this struggle is universalized and practiced by each social group. In our times, *because everybody is a consumer, everybody is exploited as a profane*. The exploiting caste is that of the “technocrats”, a very fuzzy group showing both a traditional branch and a neo-technocratic branch. The technocrats are also consumers, and therefore they are exploiters in some areas and are exploited in others, differing in this aspect from earlier ruling castes. In short, it is possible to affirm that because knowledge is power, class struggle has consisted primarily in a fight for knowledge. In this struggle, both the role of Servant and the role of Master have changed; these roles have assimilated experiences incorporating them into the base of the unconscious of society. Class struggle as the struggle of castes, is hidden the real confrontation between archaicity and modernity; a confrontation that incorporates the irreversible feelings and emotions, learning and memories that constitute the knowing-how of each historical period into a collective unconscious. This modernization ensures the parallel development of what we could call the ‘civil society’, that is, the growing set of experiences that lies in the ‘walls’ of institutions that reinforce the unity among men, weakening the existence of castes. This development reinforces the experience of mankind reducing the importance of ethnicity and questioning the formation of groups of interests in general. That the Civil Society is not contemplated in Marx’ metaphor about the social building is one of the major problems of Historical Materialism. The concept of ‘civil society’ then is understood here, as the reservoir of all human knowledge and experience, the collective unconscious developed simultaneously with castes and destined to reduce their importance. Then, a ‘struggle for knowledge’ instead of the Marxian ‘class struggle’ will be a more correct description of what happens. There is not the “means of production” in general those which decide the mode of a social organization, but the “means of

knowledge and experience”. In accordance to this conclusion, we will need to reinterpret the Marxian political project as the appropriation by the ‘profanes’ of the accesses to the social means that produce knowledge.

The rise of technocracy

In spite of its precarious foundations, Marxism triumphed in countless political battles until 1989 when the inevitable happened: Marxism *imploded*; it collapsed like a house of cards. From the beginning, the Russian Revolution had relegated the empowerment of civil society; instead the civil power was usurped by the new mentors of a new caste: the *technocrats* of the communist party, the avant-garde that become the new ruling caste. The communist *technocracy*—the majority of them recruited from the educated middle-class- did that which any earlier upper class always did, showing that they knew what must be done; in short, they exercised social power as ‘knowing how’ in the name of the whole society. It is not a coincidence that one of Lenin’s most important texts was titled *What is to be done?* Once again, the rhetoric of revolution occulted that a new dominant caste reached a power position. The history of the Soviet is well-known; the dictatorship of the proletariat demanded huge sacrifices from the *profanes* and the payment to this sacrifice was the demand of more sacrifice. Very soon became obvious that the communist project loosed the support of the civil society. The authoritarianism and deficiencies of the system evidenced during the seventy years of the Soviet Union’s existence supported the idea that the original project had fallen into the hands of a new ruling caste, the caste *of the technocrats or bureaucrats*.

A new Mode of Production

What can be said about the emergence of a new dominant caste different from the capitalists and the proletarians? To begin with, it is necessary to study the possibility of a new *Mode of Production*. This could be framed as a consequence of the "scientific revolution", studied in detail by John D. Bernal (1901-1971) and Radovan Richta (1924-1983). Richta stresses in his book *Civilization at the crossroads* (1972) that the incorporation of automatization to the production process, had as a consequence the necessary replacement of the industrial worker by *a new kind of productive agents: the economic expert, the engineer and the scientist*. Richta, one of the ideologues of the aborted Czech revolution, understood the automatization of production as the sign of a new era which he associated with socialism. We believe with Richta and his colleagues, that a *new mode of production* was born; one that is defined by the enthronement of *automatic processes* in society in general, process that have accelerated thanks to the *digitalization* of society. The new mode of production is a consequence of the development of artificial intelligence and Cybernetics. This development became obvious after the Second World War and especially after the eighties when the digitalization of the entire social life became the dominant factor in production, consumption and communication. Let's call this new historical phase the *Technocratic Era*. According to Richta, the new mode of production had its fundamental basis in the U.S.A. and in the capitalist countries of Western Europe, but also in the USSR. What Richta did not see – because his intentions were directed to justify socialism- was that the New Mode of Production implied a *new mode of exploitation*, the exploitation of the *users* of the new technocratic power. If so, and always within the formal framework of Historical Materialism, we would need to *discover the group of the exploited* and a framework for this exploitation. *We should be able to discover the specific new forms of the generation of surplus*

value.

The exploitation of the consumer: voluntary work

In the USSR, the economic structure was based on bartering, namely the exchange of values was based on the relative immediate utility of an item. The consumer of the USSR received a list of available items and *adjusted* their consumption depending on their availability. So the USSR began a process of *dethronement of the consumer* for the benefit of the technocratic plan; in short, *the automatization of society imposed the adaptation of individual desires and needs to the demand of the big plan*. This macro-phenomenon was called "planned economy". The consumer in the USSR had to adapt its needs to the decisions taken by the technocracy. In perspective, it is obvious that this process was developed more effectively in the capitalist world because in the West, authoritarianism was not necessary and other mechanisms substituted it as the dominant political discourse. In the Western countries, the change to a Technocratic Mode of Production has been presented quite differently: as *the enthronization of the consumer*. This was confirmed by the strong moral reaction of leftist of all origins against the *consumerization of society*. Of course, this is an illusion, in the capitalist world the *enthronization of the consumer* has been accompanied by the exploitation of the same as a "prosumer". In contemporary capitalist society, the exploitation of labor takes subtle forms, the consumer become a *producer because it is a consumer*. It is organized so that *a growing labor part is charged to the consumer*. A growing part of the work in the automated society assumes the form of *voluntary labor*, expressed as the slogan "Do-it-Yourself". In contemporary society, a growing number of businesses corporations require that the consumer performs a growing part of the job. The argument is revealing; these demands are made to benefit the

consumer because in the end the final product becomes cheaper. But, will this not also increase the company's profits? We observe that to carry out the transference from producer to consumer, the *capitalist must automatize much of its production and administration*. In other words, it must undergo a technocratic restructuring. Indirectly, the added value generated by the work of the consumer, financed the development of the class of technocrats. It is obvious that this new caste of technocrats collaborates with the cast of the capitalist; once again, we find both the confrontation and the collaboration of the ruling castes during the time of the transition of the rules of dominance. We say that the contemporary company is *mainly capitalist if the bases of its actions rely on the direct appropriation of the results of the work of an employee*. On the other hand, we say that a company is *mainly technocratic if it appropriates surplus value through the consumer's direct work*. The most of the contemporary corporations show mixed forms combining both paid work with volunteer work. An example of a mainly technocratic company would be Microsoft; an example of a mixed corporation would be IKEA. Unlike what happened in the USSR, in the capitalist countries the consumer is provided by the items that are demanded. As in any earlier mode of production, the exploited gains with this change. This improvement guarantees the successful transfer of power from the capitalist to the technocrat. In this way the "consumerism" of our time is justified as a new form of exploitation of work and a new way to appropriate the surplus value generated by human activity.

Relationship between technocrats and capitalists

In connection to each step in the process of automation of the

society, more power is transferred to the technocratic sphere. Technocracy works from the *inside* of capitalism; it *colonizes* capitalism, eroding their power from within. As in previous examples of social transition, the development of technocracy is generated in the shadow of the dominant class, the capitalists. In the same way that technocrats of the Communist Party of the Soviet Union took over the power of capitalists, the technocrat of the capitalist countries replaces the capitalist power with technocratic power; but in this case, the process of substitution is taking place gradually; technocracy increase its power progressively from within the capitalist corporation. The technocrat does not work for free; his survival depends on the exploitation of the free work of the consumers of the rest of society, i.e. the work of the *profane*. For Marx, the relationship of exploitation was *unidirectional* from the exploiter to the exploited: the slave was exploited by the Master; the proletarian by the capitalist; *but the technocrat works for those who he exploits*. The technocrat works dismantling the power of the capitalist, (the Master) whom he gradually reduces to a profane, establishing himself as the new Master. The capitalist exploits the expert and the expert exploits the capitalist but in the end the expert triumphs, because in the technocratic society, money became *organization and information*. Because social power lies not in having arms, nor in having money, *but in knowing how to use weapons and how to use money*, the power of the capitalist became obsolete. In the society of the technocrat, social power depends on knowing how to use *organizational value in general*. As it happened in previous historical transitions, the new social model is based on the pre-existing, removing it little by little. Unlike capitalism which sought to appropriate the surplus value of the work of the proletarian, technocrat exploitation is built on the exploitation of the whole society. Therefore it is not possible to reduce the status of the technocrat to the status of the capitalist. The expert can adapt

colonizing all social groups preying from the added value generated by all of them as consumers. For Marxism, economic reason is originated in the processes of exploitation of the labor force of a salaried, while the rest of society assumed a secondary role (Ivan Illich's "shadow work"). The exploitation of the labor force in the technocratic mode of production on the other hand, takes place at all levels and in every social group simultaneously. As long as everybody is a consumer, the exploitation of labor occurs in the family, in the Club, in the Trade Union, at the political party, in the Church, in the hospital, etc. because all consumers are working for the technocrat. The technocratic mode of production transforms "exploitation" to a *moral* demand. *To be is to consume*. But the technocrat also exploits other technocrats in areas of knowledge in which the individual is a profane; e.g. the medicine expert exploits the engineer and vice versa. The relation of "exploitation" works now in both directions, the exploiter is exploited by the exploited. This property makes the technocratic mode of production "more advanced", "more modern" and "more democratic" than the capitalist mode of production. The reciprocal character of exploitation makes the concept "exploitation" more acceptable. By the same reason, the technocratic mode of production needs *educated* consumers. Because of that, the new economic paradigm shall impulse education at every level but particularly at the pragmatic level. For the technocrat, it is not relevant if the inhabitants of a shanty town can read and write as long they manage to manipulate the last generations of phones. Advanced technologies will found consumers wherever they are.

The struggle against the new forms of exploitation

Faced with the advance of the technocracy, the profane are or-

ganized to strengthen civil society. Note that the profane response takes the form of NGOs supporting their arguments some of the “post-modern” ideologies of our age, specially defending the interests of the consumers by also in connection to feminism, environmentalism, animalism, pacifism, humanism, etc. The NGO has its roots in the Civil Society; the acting of the NGOs, capitalized the widespread distrust in political parties, the distrust in the administration of the State, in the world of finance, and in general in any member of the establishment who can be identified with the class of *technocrats*. The situation is problematic because the technocrat can be found everywhere, as a leader of the Trade Unions, as a priest, as a politician, including the own leaders of the NGOs. They acting are an example of tentative attempts for a development of alternative politics and alternative economics. The profane activists, the new heroes of history, are organized in order to strengthen Civil Society, they fight for the *defetichization* of the technocratic society; they condemn as unacceptable the consequences of automation as dehumanization. Confronting technocratic colonization, the profane activist works to remove the power of the experts, because it is in the world of the experts where technocracy exercises its power. In his fight against technocracy, the profane would join the proletarian in its fight against capitalism, but warning for the risk of the technocratic colonization of the working-class. However, these leaders that act in the name of the profane, as in earlier historical transitions, come from the dominant class they try to fight: they are technocrats too.

Rethinking the Hegelian Master-slave dialectics

In the *Phenomenology of Spirit*⁴³ Hegel described the mechanism through which consciousness becomes self-consciousness; Hegel believed that the self becomes self-conscious interchanging with the other. Hegel's dialectic of *Herrschaft und Knechtschaft* is the formula that human interchange takes in history, a kind of inherent regulation of power in society. Hegel expressed this historical mechanism as "logic".

In order to attain certainty, in order to exist in and for itself, self-consciousness must therefore exist in this way for another - must be recognized as self-consciousness by another self-consciousness. Hegel calls the process by which this takes place 'the process of Recognition'. Arising in its original form at an early stage of history, it leads to a life-and-death struggle. The reason why the demand for recognition leads to such conflict becomes evident if we examine the process more closely. When two self-consciousness meet at this stage, they seek to reflect themselves in one another: the other provides the Possibility of seeing oneself. However, this mirroring also means that one is objectified, is rendered an 'otherness' - an otherness that one wishes to supersede. Each self-consciousness goes through these motions, since human beings are fundamentally similar.⁴⁴

The Hegelian model of historical consciousness was adapted by Marx and Engels into a materialistic historical model with the concept of "class struggle" at the center. Later, the Marxian model was combined with the Hegelian model in the works of French existentialism:

A characteristic of Kojève's and Hyppolite's interpretations

⁴³ Hegel, Georg Wilhelm Friedrich & Baillie, J. B., *The phenomenology of spirit: (the phenomenology of mind)*, Digireads.com Publishing, [Lawrence, Kan.], 2009.

⁴⁴ Gothlin, Eva, *Sex and existence: Simone de Beauvoir's The second sex*, Athlone, London, 1996; p. 60.

and one which made Hegel into a philosopher suitable to the times, was that they established a connection between the works of Hegel, Marx and phenomenological existentialism.⁴⁵

Following Kojève and Hyppolite, Simone de Beauvoir explained the relationships of power between women and men during history as an example of the model of the Master-Servant dialectics. Fighting the patriarchal heritage in modern society, women would develop the consciousness necessary to achieve freedom. Until the publication of Foucault's theory of Bio-power, the Master-Servant dialectics was the dominant theoretical model to explain the evolution of society as an historical whole. But with Foucault's work, and later with the work of Donna Haraway and the post-humanists, the explanative power of the Master-Servant dialectics was seriously questioned. Foucault's criticism of the Master-Servant dialectics was indirect; he chose to confront instead the notion of truth and that of power associated to it. According to the Master-Servant dialectics, truth is undermined by the power of the Master; it is a power that is accomplished through ideology, which is a deceitful substitute of truth. Truth instead, is on the side of the repressed and can be achieved only by fighting the ideology of the Master. Even if Foucault never made an explicit connection, is very clear for us that the relation between power and truth that he named the "repressive hypotheses," is that of the dialectics of the Master and de Servant. According to this theory, truth *is repressed by power*. Foucault argues that according to the "repressive hypothesis", European history have changed to an ever-increasing repression that comprises particularly the sexual sphere of society. The highest moment of this process would be the rise of capitalism. According to this view, sex was repressed because it was incompatible with the ethics of work demanded

⁴⁵ Gothlin, Eva; p. 58.

by capitalism. Sexuality would then be only an appendage of the real story, the rise of class society which culminated with capitalism and sexual liberation would be a kind of resistance to capitalist repression. According to Foucault, psychoanalysis played an important part in the *mise-en-scène* of the repressive hypothesis. Working against repression, psychoanalysis became the self-appointed exorcists of “truth”.

Against this tradition, Foucault’s historical studies suggested a new interpretative paradigm of social power which would have been developed during the 18th century: it was that he entitled the “Bio-power,” which emerged following two paths; 1) the manipulation of inheritance that made the quality of the human species a scientific matter, and 2) the manipulation of the human body in general, through punishment and reward. Foucault presented this new paradigm in *Discipline and Punish: The Birth of the Prison*.⁴⁶ In this new paradigm, *truth is achieved through power* and consequently, the Master and the Servant moved to a secondary roll. We have instead the invisible power of society as a whole, developing social instruments of control as prisons, schools, universities and hospitals to create a new truthful world. The disciplining of the bodies was applied not only to the working classes but also to the class of the “Masters”, through the disciplining action of institutions as penitentiaries, hospitals, universities and schools. In this new paradigm, in which truth is produced through control and discipline of every social group, the struggle between castes loosed its central role; it is as if truth *would be squeezed out* from the bodies of people. This new society, which we could describe as “modern”, organized its resources independently of particular caste interests, subordinating the point of view of individuals and groups to the whole modernization of the social corpus. Of course, this thesis is very con-

⁴⁶ Foucault, Michel, *Discipline and punish: the birth of the prison*, 2nd Vintage Books ed., Vintage Books, New York, 1995[1977].

troverial, and anticipates a theory of society which Foucault never developed. In short, the Foucaultian social theory assumes that society acts as a bio-machine and that social corpus is a kind of supra-social entity of artificial character. The Foucaultian approach is post-humanist in essence, actualizing the question of the relation between Social History and Natural History. However, the Foucaultian approach is not an expression of social-Darwinism because the positivity and negativity of bio-power affects every individual without discriminations. The theory of the bio-power frees social thinking not only from the negative consequences of the Master-Servant ideology, which cultivate the ideology of the “offer”. Because of this particularity, the work of Foucault has been understood differently by different feminists. Some feminists that embrace the original Hegelian perspective of Simone de Beauvoir have criticized Foucault’s rejection of the repressive hypothesis. However these feminists fail to point out clearly the real conflict that they have with Foucault’s approach, avoiding discussing his hidden criticism to the Master-Servant dialectics.

Feminists warn against using Foucault in no uncertain terms. Toril Moi, for instance, says, “the price for giving into his [Foucault’s] powerful discourse is nothing less than the depoliticisation of feminism.” Likewise Nancy Hartsock says, “Poststructuralist theories such as those put forward by Michel Foucault fail to provide a theory of power for women.” And Linda Alcoff cautions that “a wholesale appropriation of Foucault by feminist theorists is unwise.” Just what is so dangerous for feminists about appropriating Foucault’s theories, one might ask. In general, feminist critics of Foucault fear that his rejection of norms undermines the possibility for feminism as an emancipatory political movement. His rejection of norms, combined with his view that

truth and knowledge are always produced within a network of power relations, leads many to accuse Foucault of relativism and nihilism.⁴⁷

Some other feminists, notably Donna Haraway, see in the concept of bio-power an interesting contribution to the politics of the body. Cyborgs are symbiotic fusions of organic life and technological systems. These visions of human-machine coevolution that focused on technology, had been studying e.g. the new practices of fecundation and the ultramodern technics of nursery. These feminists understood the work of Foucault as a timid beginning of a new era. For example Donna J. Haraway, wrote: “Michael Foucault’s bio-politics is a flaccid premonition of cyborg politics, a very open field.”⁴⁸ Cyborg technologies would be the consequence of new forms of embodiments, new developments of the body understood as human aids. In this new paradigm, power is associated to the technological knowledge and truth achieved by society as a whole independently of any specific “social struggle”, actualizing the old structural problem of Marxism, which did not managed to explain the place of language and science in relation to class struggle.⁴⁹ As a consequence of this “cyborgizing process”, the differences between social groups as well as the differences between men and women would tend to disappear.

⁴⁷ McLaren, Margaret A., *Feminism, Foucault, and embodied subjectivity*, State Univ. of New York Press, Albany, 2002; p. 2.

⁴⁸ Haraway, Donna J. *Simians, cyborgs, and women: the reinvention of nature*, Routledge, New York, 1991; p. 150.

⁴⁹ About this see the section above entitled: “Modernization independent of class struggle.”

Chapter 6: The beginning of the future

From Cyborg imagery to operative cyborgness

In contemporary philosophical texts, the cyborgness of social relationships takes the form of a *vision*. That is the approach that e.g. Donna J. Haraway choose to introduce her *Cyborg Manifesto*. She wrote: “The ideologically charged question of what counts as daily activity, as experience, can be approached by exploiting the cyborg image.”⁵⁰ Writing the manifesto Haraway was searching for a liberating metaphor, an inaugural future free from the burden of archaicity:

Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of a powerful infidel heteroglossia. It is an imagination of a feminist speaking in tongues to strike fear into the circuits of the super savers of the New Right. It means both building and destroying machines, identities, categories, relationships, spaces, stories. Although both are bound in the spiral dance, I would rather be a cyborg than a goddess.⁵¹

The features attributed to cyborg can reach mythical character being free from any of the characteristics of the human heritage; the

⁵⁰ Haraway, Donna J. “The Cyborg Manifesto.” *Simians, Cyborgs and Women. The reinvention of Nature*. Free Association Books, London, 1991; p. 180.

⁵¹ Haraway, Donna J. *Ibid*; p. 181.

cyborg must be associated to a being without history:

The cyborg is a creature in a postgender world; it has no truck with bisexuality, pre-Oedipal symbiosis, unalienated labor, or other seductions to organic wholeness through a final appropriation of all the powers of the parts into a higher unity. In a sense, the cyborg has no origin story in the Western sense; a “final” irony since the cyborg is also the awful apocalyptic *telos* of the West’s escalating dominations of abstract individuation, an ultimate self-untied at last from all dependency, a man in space.⁵²

In the prophetic words of Haraway the dichotomy between a natural and a cultural world with all its consequences will be overcome and the organic family with its oedipal connotations will disappear too:

The cyborg is resolutely committed to partiality, irony, intimacy, and perversity. It is oppositional, utopian, and completely without innocence. No longer structured by the polarity of public and private, the cyborg defines a technological polis based partly on a revolution of social relations in the *oikos*, the household. Nature and culture are reworked; the one can no longer be the resource for appropriation or incorporation by the other. The relationships for forming wholes from parts, including those of polarity and hierarchical domination, are at issue in the cyborg world. Unlike the hopes of Frankenstein’s monster, the cyborg does not expect its father to save it through a restoration of the garden, that is, through the fabrication of a heterosexual mate, through its completion in a finished whole, a city and cosmos. The cyborg does not dream

⁵² Haraway, Donna J. *Ibid.* p. 150.

of community on the model of the organic family, this time without the oedipal project. The cyborg would not recognize the Garden of Eden; it is not made of mud and cannot dream of retuning to dust.⁵³

Being more explicit about the features that characterized the cyborg, Haraway defines this embodiment of artificiality in the following manner:

The machine is not an *it* to be animated, worshiped, and dominated. The machine is us, our processes, an aspect of our embodiment. We can be responsible for machines; *they* do not dominate or threaten us. We are responsible for boundaries; we are they.⁵⁴

It is expected that Cyborgs will overcome gender differences:

Up till now (once upon a time), female embodiment seemed to be given, organic, necessary; female embodiment seemed to mean skill in mothering and its metaphoric extensions. Only by being out of place could we take intense pleasure in machines and then with excuses that this was organic activity after all, appropriate to females. Cyborgs might consider more seriously the partial, fluid, sometimes aspect of sex and sexual embodiment. Gender might not be global identity after all, even if it has profound historical breadth and depth.⁵⁵

Haraway recognizes the militarists risks associated to such visions. Cyborgness development has been a part of the military industry, the row manifestation of hegemonic use of science and technology at the service of capitalism:

⁵³ *Ibid.* p. 151.

⁵⁴ *Ibid.* p. 180.

⁵⁵ *Ibid.*

The main trouble with cyborgs, of course, is that they are the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins. Their fathers, after all, are inessential.⁵⁶

Considering Haraway's words carefully we believe that our task consist in avoiding a mythical incorporation of the cyborg image to our analysis of a contemporary cyborg social life. The challenge is that of trying to discover the cyborgness of our social life without embracing a romantic perspective. Of course, there are no guaranties, and this cannot be done without concessions to inappropriate anticipations of the future. According to our interpretation of human acting, the "substance" of any act is order and the goal of it is *cyborgization*. Consequently, the organizational value of an act decides if the consequences of this act could be move the human to the cyborg.

The future of exploitation and alienation

Marx and Engels could think in a future communist society, as an acceptable working hypothesis. They were not worried about a specification of the particularities of this remote future, and their principal task was that of elucidate the mechanisms of capitalism, including its roots to the origins of Social History. To the utopic vision of a communist society some properties were associated; for instance, that it will be classless; that the means of production will be common property; that no exploitation of human labor will be possible and that a free access to necessary consumption will be granted. The development of productive forces will conduct to a perfect distribution of this

⁵⁶ Haraway, Donna J. *Ibid.* p. 151.

wealth between all the human individuals. Besides of this, the communist society will not generate alienated work at all, which means that work will be a meaningful act.

In a higher phase of communist society, after the enslaving subordination of the individual to the division of labor, and therewith also the antithesis between mental and physical labor, has vanished; after labor has become not only a means of life but life's prime want; after the productive forces have also increased with the all-around development of the individual, and all the springs of co-operative wealth flow more abundantly -only then can the narrow horizon of bourgeois right be crossed in its entirety and society inscribe on its banners: *from each according to his ability, to each according to his needs!*⁵⁷

What can be said about this today? For our generation it is obvious that these visions are the expression of a naive period of social science and we understand our task in a very different way; we know much more today about what capitalism is and which are its positive and negative consequences. Today we need to reach longer; we need to know much more about the possible future of society. Today, we cannot speculate recurring to utopian visions. One first very important conclusion that we can be sure about the social future is that such homogenous society –as the utopian communist society- can never be a reality. In an entropic world, *absolute homogeneity of interests is impossible*. In other words, any future society will be asymmetric in many senses and will show inequalities in every level. It is admissible that the development of social technologies will permit the reduction and control of these inequalities in an increasingly manner, but they will be methodo-

⁵⁷Marx, Karl. *Critique of the Gotha Program*. Marxist Internet Archive. <http://www.marxists.org/archive/marx/works/1875/gotha/ch01.htm>

logically unavoidable. Further, any future society will include a necessary division of labor and this division will generate inequalities in the levels of subjective satisfaction and objective remuneration. The development of science and technology will impose an increasing specialization of the human labor with the necessary social inequality.

- 1) So the first characteristic of the social future will be that of *individuation and specialization of interests rather than of homogenization.*

However, this does not mean that the future will be a society of castes as we know it today. In some sense, the future of society will tend to be casteless. The future of castes will be increasingly eroded. The division of labor in the archaic society was related to the sexes and to the ages of the members of the tribe.

- 2) The second property of our social future will be that of the division of labor reinforcing the rights of women, children, disabled persons and elderly, including in this process the reinforcement of the rights of minorities: sexual, ethnical, religious, etc. In connection with our first conclusion above, *individuation must be understood as the maximization of heterogeneity inside the labor process.*

Another very important problem to elucidate is to decide if the society of the future will be free from *exploitation* and from *alienated* labor. We must first specify what we understand as “exploitation”. It is obvious that for Marxism the march of history is in *some manner* independent of the human free will. The simple idea of Historic Materialism as “the science of history” implies that not everything is

open to the free choice of the actors of history. Nevertheless the actors of history can change their destiny by conscious decisions. This dualistic approach of Historical Materialism explains capitalism as an unavoidable stage in the historical development, a stage with exploitation of labor but clearly “better” than previous economic systems and therefore desirable; however, only as a stage to be substituted by communism. Historical Materialism accepts exploitation only because it conduce society to another and “more acceptable level of exploitation”. From the point of view of the cyborgization process, the conclusion is the same with the only difference that we cannot see any possible stage of “communism” in the future. We only can expect endless successions of “more acceptable levels of exploitation”.

Cyber-revolution

The question about power and its relation to truth or knowledge is central for any theory of history that can be a support to political action. Any theory then must open to the deconstruction of power, showing the path of action that allows such a deconstruction. The Marxian theory allowed such a deconstruction of power understood as the transference of power from a class to another mediated by the political action of the communist party. However, the Marxian deconstructive methodology has been formed by the dialectics of the Master and the Servant, and it is indistinguishable from it. After the Soviet revolution in 1917, the power of the dominating class of the capitalist society and their political organs were transferred to the communist party and the class of workers and soldiers. However, immediately after, it shows to be a variant of class society, a new expression of the paradigm of the Master and the Servant. The historical case of the Soviet Union showed that the dialectics of the Master

and the Servant cannot be used to the deconstruction of power even if it can be seen as a correct description of historical development. The confusion of Marxism started with the interpretation of the role of ties of blood in history. Marx and Engels believed that society was originally organized around the family (the women, men and children) that formed clans or tribes and finally constituted ethnic groups. With the development of the means of production, this archaic society converted into a class society where blood ties were replaced by political ties. Subsequently, the family, the clan and the ethnic group pass to play a secondary role in the development of history. As we tried to show the situation is quite the contrary, social classes are actually an extension of the family, the clan and the ethnic group. For example, the slaveholding society emerges with the enslavement of the ethnic foreigner. It is documented that the ethnic groups of slaves from Antiquity were the people that constitute the class of medieval serfs in Europe, and that later the same group was the source for the individuals that constituted the working class of capitalism. In short, the social classes that had arisen in different periods of history *are kin to each other*; they have the same gene bank. The same can be said of the dominant groups of the Masters. That is way we say that the exploiting and the exploited “classes” actually behave as “castes”. During the formation of the new caste of Masters, some of the old members of the castes brake with their caste and take the role of leaders of the oppressed; then, they use the new political power to the development of a new caste of Masters and Servants. This conclusion tells us that the “class struggle” only re-names the exploited and the exploiter keeping more or less unchanged the power relations between these macro-ethnic groups. If what we want is to put an end to the “exploitation of man by man”, it will be necessary to put an end to the “struggle of castes” avoiding *promoting it*, as it has been done until now. Parallel to the “struggle of castes”, his-

tory shows the development of a Civil Society, which is the expression of the experience acquired by humanity. History shows that knowledge is irreversible; that which men and women once learned, will be a part of the experience of every new generation. This Civil Society has established and developed the powers that will put an end to the exploitation of man by man. That Civil Society is the expression of the bio-power that Foucault wrongly understood as a “period”. However, it is not the expression of a supra-biological entity, but of the development of a socio-cultural dimension. The Civil Society is characterized by being “artificial” in the sense that is independent of the “castes” of society and therefore independent of the dialectics of the Master and the Servant. Its artificiality consists in ignoring the laws governing family, the clan and the ethnic group, elaborating social laws in which arguments based on knowledge and experience prevails and tames the instinctive impulses of the archaic human. How can this new theoretical paradigm be useful to political action? How can the power of the archaic society (in general) be deconstructed? The fundamental tasks are to reinforce the Civil Society, to strengthen all the aspects of social life in which the “cyborg being” enforced the “ethnic being”. We must understand that each human group (e.g. political parties, the Trade Unions, academic groups, companies, etc.) tends to perpetuate itself by reinforcing their blood ties. This tendency has been described as “corruption”, “nepotism”, etc. This propensity must be combated by opening society to the defense of human rights in general, promoting the right to work, to health, to education but also and especially to the defense of the rights of the individual against the rights of the group. It must be promoted the equality between the sexes, the defense of the right to sexual freedom, to abortion, and to any form of family, including the family constituted by homosexuals. *In general it is necessary to support all actions that remove the basic structures of the*

castes. This should be integrated into political agency understanding that the fight against the exploitation does not pass by changing the form of exploitation, but in changing a society based on exploitation with a society based on collaboration. We believe that this emerging human being will be a “cyborg”, understanding with this that the new man and woman will be a product of history and culture. We affirm as Donna Haraway that the Foucaultian bio-power is a “flaccid premonition” of the cyborg society. It is also *misleading*, giving the impression that the emerging society will be a kind of “ant colony”. The cyborg society is a society of post-humans that are as “human” as always but much more conscious about their biological limitations. Conclusively, biopower can be deconstructed but not removed; biopower will allow the expression of a Civil Society besides the unwished consequences of the dialectics of the Master and the Servant. Bio-power can only be meaningful in a cyborg context. Cyber-revolutionary is in short, to work for the development of the cyborg and for the establishment of a cyber-society through strengthening human rights in general and the rights to health and education. The implementation of a general defense of the human rights debilitates the bound of castes favoring artificialization. To work for a Cyber-Revolution is to practice solidarity because that means to break with the family ties to support the strange. Solidarity is never applied to your own family but only in relation to others. Of course not all levels of solidarity are equally effective, the more alien the receiver the most revolutionary the act of solidarity will be. Cyber-revolutionary is to work against racism, against the controls of sexuality and marriage, against anti- sexist education, for the rights of women and children, for the increasingly development of health services for all, for more free time and in short for a longer life for everybody but especially for the stranger. In this sense, the ideals of socialism will be useful as long as it does not become a

project of the *Cosa Nostra*.

To artificialize is to revolutionize human relations, not to subordinate them to the control of capital, or to the control of the party, or to the control of the state, because all these centers of power are created and maintained by the great archaic family-background in which the subject was once generated. Family is love, protection, security but also is submission and resignation. These archaic values, positive and negative are essential to human psychology but they will be less important for the cyborg. The cyborg will feel love and hate as well, but it will be shedding the most brutal features of their biological nature. The cyborg will shed gradually the hate to the other for being different; it will be less engaged in rape, in murder, in torture, in exploitation of the labor of others. The path to follow is then that of favoring the development of an artificial consciousness, direct and indirect, simple and complex, in communication and in things, in organization and in acting. In part, this can be reached from the natural development of the technical means of a digitized society. But this new kind of social-organization is often provided in overflow, drowning us and reinforcing indirectly the archaic ties of society. Therefore, it is necessary that the new organizational values are redirected to the benefit of the artificiality of a future cyber-society. We believe that the construction of a cyber-society is inevitable, in this sense we will avoid to fall into the Marxist Hegelian dialectical dualism which admits the dimension of a political will. The free will expressed in political acts cannot stop this development. But the roads to the cyber-society are many, and the question is what road we will choose. Therefore, from the point of view of the subject—"from my own perspective"- it is important to understand why a path is better to another, and to decide to what extent concerns us that the development of this or that path is a better choice to cyborgness. Being reluctantly tied to biological roots, the cy-

borg loves and hates; however, the cyborg has only one ethical commitment which compels it to move away from the archaic roots. The cyborg is ethically innocent, identifies itself with the machine and has the moral of it, that is, each day is a little more indifferent to the good and the evil of the human perspective. The cyborg is not liberal, nor is an anarchist, not it is a communist nor is a capitalist: it is instead a *modernist*. Its life is dedicated to the higher task of achieving immortality through artificiality.

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