

Switches of Memory

Remarks on historiography

The Humanist as Engineer

Book IV

Fernando Flores Morador



Lund University

2014

Department of History of Ideas and Science

University of Lund

Book IV: *Switches of Memory. Remarks on historiography*

Helgonavägen 3, 221 00 Lund

© Fernando Flores Morador, 2014

Layout: Maria Flores Crossa

Tryck: Media – Tryck, Lunds Universitet, 2014

ISBN: 978-91-633-9205-4

Dedicated to Alice and Lucas

Contents

INTRODUCTION: MEMORY AS SCRIPTUM	9
THE MULTIPLE SIGNIFICANCE OF <i>IN SCRIPTO</i> -MEMORY	19
CHAPTER 1: THE HISTORICAL TEXT-PRESENTATION	23
HISTORY AND THE QUESTION OF THE PAST	23
THERE ARE NO ACCIDENTS IN HISTORY	27
THE SWITCHES OF THE HISTORICAL PRESENTATION	28
THE NARRATIVE 'TEXT' IN GENERAL AND THE HISTORICAL 'TEXT' IN PARTICULAR	33
THE TESTIMONIAL CHARACTER OF THE STRICT HISTORICAL TEXT	36
TANGIBLE AND INTANGIBLE HISTORICAL MATTERS	37
CHAPTER 2: REMEMBERING AND THE HISTORICAL EXTRAPOLATION	41
THE POROSITY OF THE HISTORICAL PRESENTATION	41
SEARCHING	44
FINDING	48
THE BREAKPOINT OF THE WORLD OF RESEMBLANCES AND THE RISE OF FINDING AND SEARCHING	51
THE ENIGMACY OF HISTORY	55
CHAPTER 3: THE SWITCHES OF MEMORY	63
THE EXPOSITORY SWITCHES	63
THE NARRATIVE SWITCHES	76
THE EXTRAPOLATIVE SWITCHES	80
CHAPTER 4: THE HISTORY OF MEMORY	85
LABYRINTHIC EXTRAPOLATION	85
THE SPECULATIVE (PARTIAL) EXTRAPOLATION	87
THE POSITIVE (PARTIAL) EXTRAPOLATION	96
THE TOTAL EXTRAPOLATION	108
CHAPTER 5: NATURAL HISTORIA	115
NATURAL HISTORICAL EXTRAPOLATIONS	115
PSYCHOANALYSIS AS NATURAL HISTORY	116

EPILOGUE	121
INDEX OF RELEVANT NAMES, CONCEPTS AND THEMES	125
BIBLIOGRAPHY	127

List of Presentations

PRESENTATION 1: THE ANTHROPOGNOMIC DRAWINGS OF CHILDREN OF 2, 3 AND 4 YEARS AS THE THE INVERSION OF THE PROCESS THAT THE ADULT FOLLOW FROM THE IMAGE TO THE SIGN.	14
PRESENTATION 2: THE PRESENTATION OF “MAN” IN THREE DIFFERENT LEVELS OF THE OPACITY OF THE MARK ACCORDING TO ITS ANTHROPOGNOMIC ORIGIN (MITCHELL, W.J.T).....	15
PRESENTATION 3: AN IMAGE OF THE FIRST USE IN PRINT OF THE IDEOGRAM “+” FROM WIDMAN’S <i>BEHENNDE VND HÜPSCHE RECHNUNG</i> . THIS IMAGE IS TAKEN FROM THE AUGSBURG EDITION OF 1526. WIDMAN WROTE, “WAS “—” IST / DAS IST MINUS ... UND DAS “+” IST, DAS IST MER”	18
PRESENTATION 4: THE CHRONOLOGICAL ORDER.	25
PRESENTATION 5: A CHRONOLOGY EMBEDDED IN AN EXPLANATION.....	25
PRESENTATION 6: EXAMPLE OF A HISTORICAL TEXT.	29
PRESENTATION 7: SWITCHING FROM THE WHO- THE WHERE AND WHEN SWITCHES TO META-WHO, META-WHERE AND META WHEN SWITCHES.	30
PRESENTATION 8: EXPOSITORY TEXT WITH ONLY WHAT AND WHICH-REFERENCES	31
PRESENTATION 9: THE NATURAL HISTORICAL PRESENTATION OF THE IDEA OF THE ATOM.	31
PRESENTATION 10: TYPOLOGY OF THE WRITTEN TEXT.....	33
PRESENTATION 11: A TESTIMONIAL PRESENTATION.....	36
PRESENTATION 12: A PRESENTATION OF THE HUMAN EVOLUTION.....	37
PRESENTATION 13: “LOOKING FOR” IN RELATION TO KNOWLEDGE.	43
PRESENTATION 14: DIAGRAM OF THE EXTRAPOLATIVE “JUMP” OVER THE “HOLES” OF MEMORY:.....	44
PRESENTATION 15: A VISUALIZING SEARCHING-PRESENTATION POSITING THE NIHILATING ACT OF “SEARCHING PIERRE” IN SARTRE.	45
PRESENTATION 16: “THIS MAP, BELIEVED TO BE BASED ON A DRAWING BY LINNAEUS, SHOWS CONTINUITY BETWEEN SOME GROUPS, AS WELL AS GAPS REQUIRING MORE KNOWLEDGE: LINNAEUS, <i>PRAELECTIONES IN ORDINES NATURALIS PLANTARUM</i> , ED. P.D. GIESEKE (HAMBURG, 1792), FACING P.623.’ (QUOTED FROM: BROBERG, GUNNAR. “BROKEN CIRCLE.” P. 245).	53
PRESENTATION 17: A “STACK” OF IDEOGRAMS IN A WHICH-ORDOGNOMY OR <i>CUMULUS</i>	66

PRESENTATION 18: GUSTAV II ADOLF'S CABINET FROM SWEDEN, 1631. WORDS AND THINGS ASSOCIATED IN AN ARBITRARY ORDER OR <i>CUMULUS</i>	68
PRESENTATION 19: THE MAP OF THE WORLD WITH JERUSALEM AT THE CENTER; HEINRICH BÜNTING (1545-1606). FROM: <i>ITINERARIUM SACRAE SCRIPTURAE</i> MAGDEBURG, 1581; WOODCUT, 25.8 x 36.5 CM; OSHER COLLECTION.	73
PRESENTATION 20: <i>THE ARBRE DE SCIENCIA</i> OF LULL.	73
PRESENTATION 21: A 'VOLVELLE' FROM LLULL'S <i>ARS MAGNA</i>	75
PRESENTATION 22: HJORTBERG'S PAINTING.....	79
PRESENTATION 23: SUMMARIZING EXTRAPOLATION MODALITIES.....	83
PRESENTATION 24: TABLE OF THE ANIMAL KINGDOM (REGNUM ANIMALE) FROM CAROLUS LINNAEUS'S FIRST EDITION (1735) OF <i>SYSTEMA NATURAE</i>	103
PRESENTATION 25: THE MARXIAN TOTAL-EXTRAPOLATION CONNECTED TO SPECIFIC KEY-WORDS APPLIED TO A PLAIN TEXT.....	110
PRESENTATION 26: THE PANOPTICON IN FOUCAULT'S DISCIPLINE AND PUNISH: THE BIRTH OF THE PRISON; VINTAGE BOOKS 1992.	112
PRESENTATION 27: THE THORNS OF A ROSE.	115

Introduction: Memory as scriptum

Because of the close connection between the narratives of history and the question of the reliability of the reported events, many attempts made to discover the nature of the historical writing entertain in a discussion about the epistemological value of the historical discourse. A good example of this could be the work of the positivists as Popper and Hempel. We will avoid a discussion about the value of these approaches because the epistemological value of the historical text in general is not relevant for our study. As we understand our task, the question of the methodology of writing history has nothing to do with its status as a positive science, but with its status as a specific kind of discourse to which some manual would be written. In the *Humanist as Engineer Manifesto*¹ we wrote that our time is the time of the end of the paradigm of criticism. By “criticism”, we understand the discernment of something through an analysis, which results are experienced as enlightening. The results of the critical analysis are an effort of accuracy in the use of concepts and their relation to reality. Starting with the work of Kant, the period of criticism ended with the deconstructionism of Heidegger and Derrida. In our time, which is also the time of

1

<http://lup.lub.lu.se/luur/download?func=downloadFile&recordOid=2273264&fileOid=2273268>

the globalization and digitalization of culture, we are undergoing the beginnings of a new philosophical paradigm characterized by the fragmentation of experience. This fragmentation does not allow an overview of the totality of a field of experience, which is only possible to reduce to singular analytical moments. The fragmentation of experience is the result of a new jump of the capability to concretion. The “concrete” dominates the scene of thought impeding transcendent generalizations. The only possible generalization is that of the genealogical generalization, the reference to the kinship between examples, cases and situations. The “concrete” manifests itself defined by the historic context of a non-transferable individuality. The concrete is also a phenomenological thing; it is inherent to the culture and history of that thing and transcendental to pure thought. (Moreover, “pure thought” itself, is only conceivable as concrete.) The new philosophical paradigm focused on interconnections, and boundaries; it emphasizes on differences, and therefore contains ambiguity as its study object. Inside this new paradigm, the world becomes multistable. The multistability of the world creates a gap between intention and implementation that distinguishes the “full” history as Natural history from the “broken” history as Cultural history. Natural history is oblivious to consciousness; broken history on the contrary, emerges as the product of human action and is accessible to consciousness. Since Marx, criticism has specified the project of transforming the world rather than interpreting it. However, *the world no longer supports transformations*. The transformation was possible in a world designed as complete and constituted by stable forms. When stability disappears, the possibility of transformation as a founding action disappears. All we have left is only the manipulation of the world. Knowledge in the new philosoph-

ical paradigm requires studying realities that must be manipulated. Our time is the time of the operative world; the more operative, the more relevant it will be as an object of knowledge.² Given the multi-stability of the lifeworld, the study of human action requires the distinction between “complete” (fetishistic or simply “technical” actions) and “broken” (actions revealed to consciousness). The study of the latter and its relationship with the first is central to the new philosophy of the humanist as an engineer. The humanist as an engineer is a “defetishistizer.” of the technical, i.e., a producer of awareness of the brokenness of human action. The *defetichization* is exercised through the *extrapolative* exercise, the building of technognomies (from Latin *gnomy* from the Greek *gnomon*, “means of judging or interpreting”) that can “jump” over the gaps of experience. The new philosophical paradigm is therefore a *philosophy of the power of extrapolating*. We will distinguish a *total extrapolation*, which fills the gap within the fragmented reality allowing the anticipation of the past and the future based on anthropognomic experiences; and *partial extrapolations*, which construct fragmented presentations about the future and the past.

This book studies the technognomies of memory *in scripto*³ as in texts, lists, dictionaries and databases and less the technognomies of memory *in vivo* (as in remembering). There are of course some relations between these two kinds of memories, being memory-in-scripto a

² For example, discussing the nature of life, we had distinguished the vital from the mechanical phenomenon by the presence or the absence of the gear; we conclude then that there are no animals that fly with propellers or that move with wheels. Flores Morador, Fernando. Broken Technologies. The Humanist as Engineer. Ver. 1.1. University of Lund, 2009; p.207.

³*Scriptum*, “a writing, book; law; line, mark.”

development parallel to the development of written language. We notice that the historical presentation is built upon both forms of memory. We notice that the historical explanation is tied to the concrete experience of persons belonging to a culture. In the history of memory then, it is necessary to distinguish two important aspects, the development of *spoken* memory and the development of *written* memory. The most important difference between these two is the medium used to perform the act of remembering. The one is supported by an audial presentation and the second by a visual presentation. Don Ihde studied the phenomenological characteristics of the visual and audial fields and their metaphysical consequences:

Before me lies a box of paper clips. I fix them in the center of my vision. Their shape, shininess, and immobility are clear and distinct. But as soon as I pair their appearance with the question of an auditory aspect I note that they are also *mute*. I speculatively reflect on the history of philosophy with recollections of pages and pages devoted to the discussion of “material objects” with their various qualities and on the “world” of tables, desks, and chairs that inhabit so many philosophers’ attentions: *the realm of mute objects*. Are these then the implicit standard of visualist metaphysics? For in relation to stable, mute objects present to the center of clear and distinct vision, the role of *predication* seems easy and most evident. The qualities adhere easily to these material objects.⁴

The essential characteristic of a visual presentation is then its *muteness*. The same is valid to the written text. Muteness is also associated to

⁴ Ihde, Don. *Listening and Voice. Phenomenologies of Sound*; State University Press; 2007; p. 50-51.

spatiality and to stability. On the other hand, audial presentations are inseparable of the notions of movement and time passing:

A fly suddenly lands on the wall next to the desk where the paper clips and begins to crawl up that wall. My attention is distracted and I swat at him. He quickly, almost too quickly for the eye, escapes and flies to I know not where. Here is a moving, active being on the face of the visual “world.” With the moving, active appearance of the fly a second level or grouping of objects displays itself. This being, which is seen, is active and is characterized by motion. Movement belongs to the verb. He walks, he flies, he escapes. These are not quite correctly properties but activities. Who are the “metaphysicians” of the fly? I recall speculatively those traditions of “process” and movement that would question the dominance of the stable, mute object, and see in motion a picture of the world. The verb is affirmed over the predicate.⁵

The spheres of the *invisible* and the *silent*, limit the spheres of the visual and the audial. These two spheres overlap partially in visual presentations that also are audial presentations; however, their natural being is to be independent from each other.

According to traditional anthropological accounts as that of Lévi-Strauss, “writing language” could be understood, in a restricted sense, the presentation of language as “marks”. The development of writing is naturally associated to the visual presentation that supports the visual sign. The history of the development from an anthropognomic visual presentation to a “visual mark” (that can support the phonetic sign) can be seen as the *reverse* of the development of children’s depiction

⁵ Ihde, Don. *Ibid.*

capability. The development of children's from a scribbling stage to the realistic depiction of reality passing through different stages of schematizing is the inversion of the process that the adult follows from the image to the sign (a scribbling stage).⁶



2 years:
Scribbling stage.



3 years:
The pre-schematic stage.



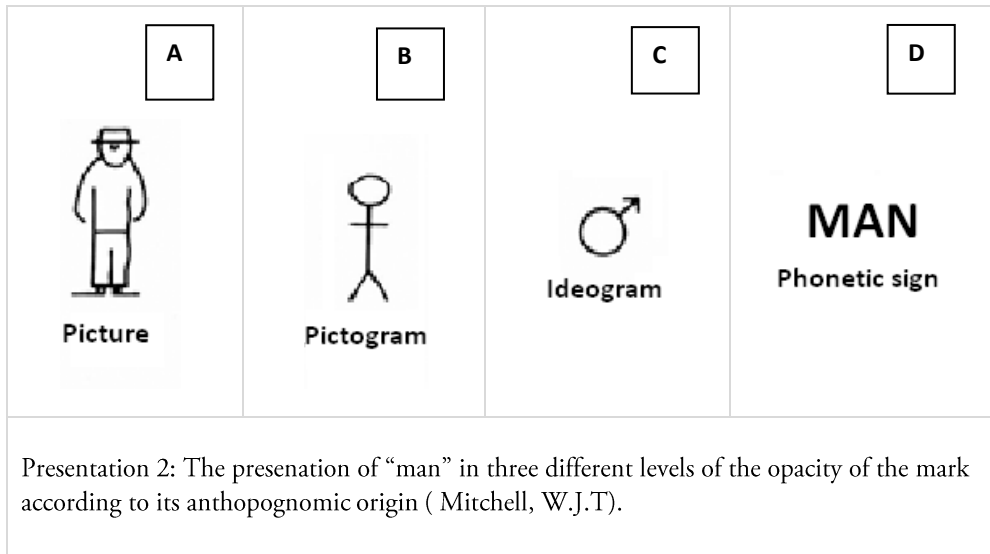
4 years: The
schematic stage.

Presentation 1: The anthropognomic drawings of children of 2, 3 and 4 years as the the inversion of the process that the adult follow from the image to the sign.

The scribbling stage of the child corresponds to the schematic presentation of the sign of the adult and these marks can be easily traced back to an anthropognomic visual presentation. Therefore, we believe that the visual presentations of written language can be divided in two groups: *anthropognomic* presentations and *phonetic* presentations. With the development of *phonetic writing*, the history of the visual sign changed radically because phonetic writing is the consequence of the *visualization of audible presentations*. The development of letters and words as visual presentations of sounds, create a completely new platform for the development of memory. The “picture” of a letter or of a

⁶ “Creative and Mental Growth.” Viktor Lowenfeld & Betty Edwards:
<http://www.learningdesign.com/Portfolio/DrawDev/kiddrawing.html>

word becomes now the natural way to present a sign visually, and due to this cause, the anthropognomic roots of the sign disappeared behind a deep process of estrangement. W.J.T. Mitchell studied a variety of visual marks and their connections that we reproduce (with some minor modifications) in Presentation 27.



Presentation 2-A is clearly an anthropognomic presentation. Presentation 2-B and C are visual *reductions* of A. Presentation 2-D is a visual presentation of an audial presentation. In Presentation 2 the mark-character of the presentation evanishes gradually from the picture of a man in “A” to the word “man” in “D”. Conversely, it is possible to say that the anthropognomic character of the presentation augments gradually from “D” to “A”.

For Lévi-Strauss, the moment of the appearance of written language

⁷ Mitchell, W.J.T. *Iconology. Image, Text, Ideology.* The University of Chicago Press, 1986; p. 27.

defines the boundaries between an innocent stage of archaicity and the beginnings of modernity. He exposes this view in a famous text titled "A Writing Lesson," published as a chapter of the book *Tristes Tropiques* published 1955. I will quote a passage of this chapter that shows the very first contact of the Nambikwara with written language:

It is unnecessary to point out that the Nambikwara have no written language, but they do not know how to draw either, apart from making a few dotted lines or zigzags on their gourds. Nevertheless, as I had done among the Caduveo, I handed out sheets of paper and pencils. At first they did nothing with them, then one day I saw that they were all busy drawing wavy, horizontal lines. I wondered what they were trying to do, then it was suddenly borne upon me that they were writing or, to be more accurate, were trying to use their pencils in the same way as I did mine, which was the only way they could conceive of, because I had not yet tried to amuse them with my drawings. The majority did this and no more, but the chief had further ambitions. No doubt he was the only one who had grasped the purpose of writing. So he asked me for a writing-pad, and when we both had one, and were working together, if I asked for information on a given point, he did not supply it verbally but drew wavy lines on his paper and presented them to me, as if I could read his reply. He was half taken in by his own make-believe; each time he completed a line, he examined it anxiously as if expecting the meaning to leap from the page, and the same look of disappointment came over his face. But he never admitted this, and there was a tacit understanding between us to the effect that his unintelligible scribbling had a meaning which I pretended to decipher; his verbal commentary followed almost at once, relieving me of the need to ask for explanations. As soon as

he had got the company together, he took from a basket a piece of paper covered with wavy lines and made a show of reading it, pretending to hesitate as he checked on it the list of objects I was to give in exchange for the presents offered me: so-and-so was to have a chopper in exchange for a bow and arrows, someone else beads in exchange for his necklaces ... This farce went on for two hours. Was he perhaps hoping to delude himself? More probably he wanted to astonish his companions, to convince them that he was acting as an intermediary agent for the exchange of the goods, that he was in alliance with the white man and shared his secrets.⁸

The question that is relevant to ask here is if this “writing” of the chief consisting in wavy lines was or not a “farce”. If we consider writing in a general sense as Jacques Derrida does⁹, then the Nambikwara group was in fact memorizing through the opacity of the sign. The attitude of the chief –who remember a little child playing to write — tell us that *the negation of the spoken sign* is the first step of writing, and that it is the constituent aspect of the mark as a surrogate of the spoken sign. Written memories then, have their origin in a visual presentation of spoken *negativities*. But, ideograms can easily be influenced by phonetic signs and vice versa making the distance between these marks very short. For example, the introduction of the mathematical symbol of a summa, “+” is a good example. According to *A History of Mathematical Notations* by Florian Cajori (first edition 1894 and 2nd ed. 1919) “The plus symbol is an truncation for the Latin *et*, though appearing with the downward stroke not quite vertical (it was found first in a manuscript dated 1417). The “+” and “—” symbols first appeared in print

⁸ Lévi-Strauss, Claude. *Tristes Tropiques*. Jonathan Cape, 1973; p. 296-297.

⁹ Derrida, J. *Of Grammatology*. Johns Hopkins University Press, 1998.

in *Mercantile Arithmetic* or *Behende und hüpsche Rechnung auff allen Kauffmanschafft*, by Johannes Widmann (born c. 1460), published in Leipzig in 1489. However, they referred not to addition or subtraction or to positive or negative numbers, but to surpluses and deficits in business problems.”¹⁰

Nicole d’ Oresme (1323-1382) may have used a figure which looks like a plus symbol as an abbreviation for the Latin *et* (meaning “and”) in *Algorismus proportionum*, believed to have been written between 1356 and 1361. The symbol appears in a manuscript of this work believed to have been written in the fourteenth century, but perhaps by a copyist and not Oresme himself. The symbol appears, for example, in the sentence: ‘*Primi numeri sesquiterci sunt .4. et .3., et primi numeri sev termini sesquialtere sunt .3. et .2.*’ [Dic Sonneveld].¹¹



Presentation 3: An image of the first use in print of the ideogram “+” from Widman’s *Behende und hüpsche Rechnung*. This image is taken from the Augsburg edition of 1526. Widman wrote, “Was “—” ist / das ist minus ... und das “+” ist, das ist mer”.

¹⁰Cajori, F. vol. 1, page 128; <http://jeff560.tripod.com/operation.html> (2012-11-22).

¹¹ <http://jeff560.tripod.com/operation.html> (2012-11-22).

As we can see, in this example, the phonetic visual presentation “et” of an audible presentation [et] became the visual ideogram “+”. By using the letter “t” in the phonetic presentation, the visual shape of the mark take over the meaning and works as an ideogram. Let us remember that the multistability of the sign works in every direction.

According to Derrida the *logos* of the West is characterized by the metaphysics of “presence”, which can be explained as the primacy of phonetic communication over writing. In this sense, deconstructing logos favor writing over speaking. It seems as if Derrida considers that in the culture of the West, more “opaque” technognomies –as phonetic writing— are prior to more intuitive technognomies as audial presentations. We believe that the question of “presence” is much more complex than Derrida assumes it to be. The question of “presence” is related to the anthropognomic reduction that is necessary in a total historical extrapolation. We will see in the next section that written presentations can open for non-historical narratives.

The multiple significance of *in scripto*-memory

In his book *Making the Social World*, from 2010, John R. Searle give us a *Grand narrative* packed in a short and direct manner. In Chapter 4, *Language as Biological and Social*, Searle wants to:

First, I want to give an account of language that is thoroughly naturalistic. It is naturalistic in the sense that it treats language as an extension of biologically basic, prelinguistic forms of intentionality, and thus meets our basic requirement of showing how the human reality is a natural outgrowth of more fundamental-physical, chem-

ical, and biological-phenomena. Second, I want to explain the special features of language that enable it to provide the foundation for all institutional ontology. The progression of the book is from intentionality to language and then from language to social institutions. This is the bridge chapter between mind and society.¹²

Further Searle asked for an answer to the question: “*What is language?*” According to Searle, “Aristotle through Durkheim, Weber, and Simmel to Habermas, Bourdieu, and Foucault” and every other philosopher of politics and society take language for granted.

“[...] all of the philosophers of politics and society that I know of take language for granted. They all assume that we are language-speaking animals and then they are off and running with an account of society, social facts, ideal types, political obligation, the social contract, communicative action, validity claims, discursive formations, the habitus, bio-power, and all the rest of it. But the problem with all of them is that they do not tell us what language is. [...] In order that you can begin to explain the nature of society, or the role of language in society, you first have to answer the question, What is language?”¹³

According to Searle, language increases the powers of communication because it allows the development of *non-real worlds that work as real-worlds*. In other terms, language allows the development of *virtual realities*. Using language, the subject experiences a situation different from the actual they may be future, past, imaginary, fantastic, etc. That would be possible because the “discrete” character of the language-

¹² Searle, John R. *Making the Social World*. Oxford University Press; 2010, p. 61.

¹³ Searle, John R., p. 62.

machine, consisting of meaningful particles that can be combined in different forms.

I said earlier that language contains sentences composed of syntactical elements. But in language these syntactical elements can be manipulated freely, whereas non-linguistic intentional states have no such manipulable components. The dog might think that someone is approaching the door. But he cannot think the false thought, the door is approaching someone, and he cannot even distinguish the thought that someone is approaching the door from the thought that the door is being approached by someone. Once in possession of a language structured into sentences, where the sentences are composed of words (together with sentence boundaries, intonation contour, and all the rest of it), the animal can manipulate semantically loaded syntactical elements at will. It turns out that this is going to be crucial for the construction of human civilization.¹⁴

According to Searle then this special capacity of the language-machine to create *non-actual realities*, make the social world possible. The social reality is then one of the products of the language-machine. Further, if language can be used to construct social relationships, it would be possible because it works as a *tool* or as a *machine* aimed to empower the natural capacities of the human body (including “the brain”). We coincide with Searle in the multiplicative power of language increasing the alternative worlds of experience beyond the limitations of time and space. However, the expansion of worlds-alternatives implies the development of non-historical narratives as the fantastic narratives. The

¹⁴ *Making the Social World*; p. 68.

written mark, build on phonemes, opens for worlds without presences, worlds as possibility that nobody has experienced. Nevertheless, the power of language empowers the technonomies of memory. In this sense, the language-machine is also a memory-machine that transcends direct communication creating reservoirs of sense, documents resting and waiting for activation. As written marks, these written presentations compete with natural things on a place in the space and time of the universe.

Chapter 1: The historical text-presentation

History and the question of the past

In an earlier book, we have studied the characteristics of anthropomorphic historical presentations.¹⁵ Let us now study here which are the characteristics of phonetic (*written*) historical presentations. How can we recognize a text about the past? Is it a text that consists on past sentences and sentences about the past? That is the opinion of e.g. Arthur Danto in his book, *Narration and Knowledge*.¹⁶ For many reasons Arthur Danto's work is a very good starting point for a study as ours, and a revision of his premises and conclusions will permit us to compare his approach to our own ideas. As a piece of analytic philosophy, his work focuses almost only on the tensed language of that he called "historical sentences", and on the epistemology of the propositions about past time. He studied also the words that refers to the past not only *manifestly* but also *latently*, understanding for these last group historical key-words which in some indirect way referred to the passing of time; for example the word "father":

[...] Correctly, to call someone a father in the primary sense logi-

¹⁵ Flores Morador, Fernando. *The Big Bang of History. Visualism in Technoscience*. Lund, 2012.

¹⁶ Danto, Arthur Coleman. *Narration and Knowledge*. (Including the integral text of Analytical Philosophy of History from 1965). Columbia University Press, New York, 1985.

cally involves reference to an earlier event causally connected, in accordance with known principles, to the present.¹⁷

Another example, Danto considers the word “scar” a key-word about the past:

The predicate ‘is a scar’ is temporally unambiguous. If it was not caused by a wound, it is just simply not a scar. It is only scar-like. Correctly, to describe something as a scar, then, involves, logically, a reference of some earlier event, which stands, to the object so described, in some obvious causal relation.¹⁸

Danto’s work is a logical exploration of the linguistic modalities of *the past, the present, and the future*. However, Danto’s study does not constitute a typical piece of analytical philosophy because in spite of starting orthodoxly, his work transcends the limits of the logical analysis making important contributions to a phenomenology of history. Danto starts his study admitting that historical sentences have a *narrative* character. This affirmation demanded the clarification of the particularities of the “narrative” text. His standpoint is that chronologies are necessarily incomplete narrations about the past. According to Danto, a chronology is not a strict narration and e.g. a text as that of next presentation cannot be considered a narration in spite of being a report of events, which actually happened, presented in a correct chronological order:

Naram-Sin built the Sun Temple at Sippar; then Phillip III exiled the Moriscos; then

¹⁷ Danto; p. 72.

¹⁸ Ibid.

Urguiza defeated the forces of Buenos Aires at Cepada; then Arthur Danto awoke on the stroke of seven, 20 October 1961.

Presentation 4: The chronological order.

The sentences above are chronologically ordered but that does not make this text a story.¹⁹ Nevertheless, the text could be transformed into a story embedding it in an explanation beginning with the words “as a consequence” or “because”:

Naram-Sin built the Sun Temple at Sippar *as a consequence* of pressure brought on him by the priestly class; then Phillip III exiled the Moriscos *because* of his religious convictions; then Urguiza defeated the forces of Buenos Aires at Cepada *because* he was better equipped; then Arthur Danto woke on the stroke of seven, 20 October 1961, *because* he wanted to get an early start for the excavations at Cervetri.

Presentation 5: A chronology embedded in an explanation.

According to Danto then, to be a historical text, a chronology must be transformed into a story including an open or hidden explanation. This explanative text became will be the expression of “changes”. An historical text –Danto says- is a story with a beginning, middle, and end:

The explanandum describes not simply an event- something that happens- but a *change*. Indeed the existence of a change is often built into the language we employ to describe things: the descrip-

¹⁹ Op cit; p. 116-119.

tion makes an implicit reference to a *past* state of the subject of change. I have already referred to the use of temporal language in my discussion. We require, of stories, *that they have a beginning, a middle, and an end*. An explanation then consists in filling in the middle between the temporal end-points of a change.²⁰

Summarizing Danto's understanding of history, the most important aspects of a historical text will be that they tell a story with a *beginning, middle, and end*, that they must refer to the past (with past sentences or past key-words) and that they include an interpretation or explanation. But, Danto demands also a place for "historical imagination". Further, Danto takes for granted that the story is about *persons*; but that is far from obvious. There are texts that fulfill Danto's conditions but which do not are strict historical texts because they are not about persons, for example the *Natural historical* texts. To avoid this misunderstanding is necessary a *testimonial* narrative, a presentation wrote about *concrete persons, associated to concrete places and periods*, in short, stories written from an *existential perspective*. As we said, Danto never studies the correlation between strict historical accounts with respect to *Natural historical* accounts. The story about the evolution of the human species, for example, is about the past, is chronological and has a beginning, a middle, and an end, but is not "historical" in the strict sense of the term because there are no persons in this story, only abstractions. In addition, to deal with concrete persons, places, periods, doing it from the point of view of an *existential perspective* is not enough; a historical presentation must also include at least two different stories connected through an *extrapolation*. We understand as an

²⁰ *Op cit*, p. 233.

extrapolation a conclusion based on *enthymemes* (incomplete syllogisms in which part of the argument is taken for granted). As we see it, in the enthymeme the historian is assuming that which is existential and the sensefulness of the account is resting on anthropogenic experiences. The historical extrapolation is about contrasting, comparing, associating or evaluating at least two text-presentations from the same or from different periods. It is important to notice that the historical text-presentation is not necessarily a presentation about the past but about at least two different periods (including periods of the present or the future).

There are no accidents in history

To paraphrase Einstein's expression "God does not play dice", we can say that neither history does it. A sentence as "history would had been another if Napoleon died earlier" cannot be part of any historical presentation. It refers to the world of possibilities, a universe with many alternative existences, a presentation adequate to Natural history but not to the strict historical discourse. There is then, only one world to history: the actual. To try to press into the historical discourse the ideas of probability and statistics, is the same as transforming the total extrapolative presentation of history into a partial positive extrapolation of Natural history. For example, the statistical behavior of the atom could never be part of an historical presentation. On the contrary, the presentation of an "accident" in which at least two stories are related through an extrapolative discourse and in which chance is excluded, can be strict historical if these make sense to a contemporary subject. For example, the story of the catastrophe of the Titanic in

1912 could be explained as the discordance between the story of the old regulations for navigations and the story of the new implemented technognomy. The existence of outdated regulations can be understood as a clearly lack of congruence between cognitive traditions and contemporary praxis. The role of regulations is to prevent possible scenarios in which one type of action can be involved and in the case of the Titanic, these regulations were not congruent with the task. That means that the word “accident” means different things in strict history and in Natural history. For example, the following strict historical account is not about chance:

Official and other investigations revealed that messages of warning had been sent but had either not been received by the commanding officers or had been ignored by them. The ship had continued at full speed even after the warnings were sent. She did not carry sufficient lifeboats, and many of the lifeboats were launched with only a few of the seats occupied. Other vessels in the vicinity were unable to reach the *Titanic* before she sank; one, only 10 mi (16 km) away, did not respond because her wireless operator had retired for the evening.²¹

The historian constructs and deconstructs a story of a story, producing an extrapolation that allows a comprehensive world picture.

The switches of the historical presentation

I believe that a large majority of persons will consider the following

²¹The Free Dictionary/Thesaurus by Fairless: <http://encyclopedia2.thefreedictionary.com/titanic> (2009-12-20).

text “historical” but according to what we have said, more correct would be to say that it is rather a “narration about the past” or “plain story”:

Olaus Magnus was born in Skeninge in October 1490. He obtained a canonry at Uppsala and Linköping, and the archdeaconry of Strängnäs. He was furthermore employed on various diplomatic services after his mission to Rome in 1524, on behalf of Gustav I of Sweden (Vasa), to procure the appointment of Olaus Magnus' brother, Johannes Magnus as archbishop of Uppsala. On the success of the reformation in Sweden, his attachment to the Catholic church led him to stay abroad for good where accompanied his brother in Poland. They were both exiled and Magnus' Swedish belongings were confiscated in 1530. Settling in Rome in 1537, he acted as his brother's secretary. At the death of the brother in 1544, Pope Paul III issued him as his brother's successor as Archbishop of Uppsala; admittedly nothing more than a title, as Sweden was not Catholic anymore and Olaus was banned. In 1545, Pope Paul III sent him to the council of Trent where he attended meetings until 1549. (Wikipedia)

Presentation 6: Example of a Historical text.

This text introduces a narration about a person and it is presented in a chronological way. It includes manifest past references as “was born” and latent past references as “brother” and “death”. But because there are no extrapolations here, it is a case of pure narrativity and not a case of strict historical text. We notice that if we change or withdraw this references the text change in character including the possibility of becoming a non-narrative text. If we manipulate the text taking away references to persons (the Who-switch) and to specific places and periods (the Where-and When-switches) introducing the omniscient perspective, the narrative character of the text would disappear. For example, in Presentation 7 the Who-switch is not a person but a category (the *Homo erectus* and/or the *Homo sapiens*) becoming a meta-Who-switch; the period (400-200 thousand years) is so vast that it is not

congruent with the anthropogonomic experience of any reader becoming a meta-Where-switch; finally the place is not defined becoming a meta-Where switch:

The control of fire by early humans is said to date back to either *Homo erectus* or very early *Homo sapiens*: that is, 400-200 thousand years ago, based on archaeological evidence of hearths. Smoldering plants and trees, or any source of hot coals from natural fires, may have been the first resources exploited by humans to control fire. Friction is the most commonly used primitive method for making fire. Ancient techniques for starting friction fires include the hand drill, the bow drill, the fire plough and the pump drill. The flint and steel method, where hot sparks are struck from a piece of steel or iron onto suitable tinder and fanned into flames, was also used by primitive cultures. These methods have been known since the Paleolithic age, and are still in common use by some indigenous peoples. (Wikipedia).

Presentation 7: Switching from the Who- the Where and When switches to meta-Who, meta-Where and meta When switches.

That which define the strict historical narrative is that it is written about concrete beings, places and periods and it is doing this from a personal point of view (from an anthropogonomic perspective) in opposition to the Natural historical text which is written about abstractions, about meta-Who- meta-When and meta-Where-switches assuming also an omniscient perspective. On the other hand, the Natural historical text must not be confounded with the expository text (or pure descriptive text) which is also written from the point of view of an omniscient, all-knowing being but without narration, including only What- and Which-switches instead of the meta-Who- the meta-Where and the meta-When-switches. A typical expository text-presentation will be that of the following Presentation 8:

The atom is a basic unit of matter that consists of a dense central nucleus surrounded by a cloud of negatively charged electrons. The atomic nucleus contains a mix of positively charged protons and electrically neutral neutrons (except in the case of hydrogen-1, which is the only stable nuclide with no neutrons). The electrons of an atom are bound to the nucleus by the electromagnetic force. (Wikipedia).

Presentation 8: Expository text with only What and Which-references

The expository text cannot be considered a narration but a description made from the point of view of an omniscient, all-knowing being. To admit this text as senseful, we must leave all anthropognomic references and accept the authority of the “expert”. The expert is here the substitute of God, the voice that apparently talks independently from any anthropognomic experience.²² To convert this pure expository text into an Natural historical text will be necessary to change the expository perspective for a narrative perspective and that is only possible moving the focus of the text to an historical frame, switching on the meta-Who, the meta-Where and the meta-When-switches (Presentation 9):

The idea that matter is made up of discrete units is a very old one, appearing in many ancient cultures such as Greece and India. The word “atom”, in fact, was coined by ancient Greek philosophers.

Presentation 9: The Natural historical presentation of the idea of the atom.

²² However, this impression is an illusion; we have shown in our book *The Big Bang of History*, that expository presentations (scientific discourses) are also built on anthropogenic experiences (epistagmatic conjectures).

Historical discourses strictly speaking, are anthropogonomic references and that means that they are built on concrete *existential* moments. In the historical presentation, the events are tied to cycles and places that *someone* has experienced. The historical discourse is dominated by the demands of the “now” and the “today” of the author, by the “existential weight” of the author’s lifetime. The strong connection of the discourse to the experience and the language of the author’s lifetime, indicate that this kind of text must be updated by each new generation. Narrative and expository texts in general are informative and explanatory, but each in its own way. It is traditional to affirm that the expository discourse strives for “objectivity and truth” and that is why they establish the grounds of any scientific enterprise. We say that the expository discourse is disconnected from the existential frame in which it is produced and that creates the illusion of objectivity understood as “free from anthropogonomic ties”. In the expository text, *authority* is at the center of the discourse and the truthfulness of the discourse become free from any *expiring date*. The structure of the discourse creates positive knowledge by avoiding deliberately any kind of human participation. Further, while the positive discourse in every form (expository or Natural historic) accept chance as an explanation, the strict historical texts does not accept chance as an explanation. Let us present a preliminary classification of the written text in general and its relation to history:

Strict historical text	Natural historical text	Expository text
Activates the Who- the When- and the Where switches.	Activates the meta-Who- the meta-When- and the meta-Where switches	Activates the What- and the Which-switches only.

Written from a personal point of view.	Written from an omniscient point of view	Written from an omniscient point of view
Does not accept chance as an explanation.	Accept chance as an explanation.	Accept chance as an explanation.
Presentation 10: Typology of the written text.		

The narrative text in general and the historical text in particular

Which is the fictional versus the realistic property of a story? Jorge Luis Borges' literature, shows the subtle difference existing between history and fiction. Borges combined historical and fictional stories in the same text exploring the limits between these worlds. He could begin a text as following:

I have noticed that the 14th edition of Encyclopedia Britannica does not include the article on John Wilkins. This omission can be considered justified if we remember how trivial this article was 20 lines of purely biographical data [...].²³

Then Borges continues with the following remarkable affirmation:

These ambiguities, redundancies and deficiencies remind us of those which doctor Franz Kuhn attributes to a certain Chinese encyclopedia entitled 'Celestial Empire of benevolent Knowledge'. In its remote pages it is written that the animals are divided into: (a)

²³ The Analytical Language of John Wilkins by Jorge Luis Borges Translated from the Spanish 'El idioma analítico de John Wilkins' by Lilia Graciela Vázquez; edited by Jan Frederik Solem with assistance from Bjørn Are Davidsen and Rolf Andersen. A translation by Ruth L. C. Simms can be found in Jorge Luis Borges, 'Other inquisitions 1937-1952' (University of Texas Press, 1993). <https://ccrma.stanford.edu/courses/155/assignment/ex1/Borges.pdf>

belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.²⁴

Wilkins system of classification is a *testimonial reference* as is Franz Kuhn who was a known translator of Chinese texts. However, the Chinese encyclopedia entitled 'Celestial Empire of benevolent Knowledge' is a *fictive reference*. The vagueness of the limits between testimonial and fictional references is one of the anthropogonic strengths of the narrative methodology. About this Foucault wrote:

That passage from Borges kept me laughing a long time, though not without a certain uneasiness that I found hard to shake off. Perhaps because there arose in its wake the suspicion that there is a worse kind of disorder than that of the incongruous, the linking together of things that are inappropriate; I mean the disorder in which fragments of a large number of possible orders glitter separately in the dimension, without law or geometry, of the heteroclitite; and that word should be taken in its most literal, etymological sense: in such a state, things are 'laid', 'placed', 'arranged' in sites so very different from one another that it is impossible to find a place of residence for them, to define a common locus beneath them all. Utopias afford consolation: although they have no real locality there is nevertheless a fantastic, untroubled region in which they are able to unfold; they open up cities with vast avenues, superbly planted gardens, countries where life is easy, even

²⁴ Jorge Luis Borges; *Ibid.*

though the road to them is chimerical.²⁵

The limits between reality and fiction dominate the reader of Borges' stories and as Foucault experienced, fantasy moves the reader to parallel possible realities. If we consider the text as a tool aimed to memorize, it would be possible to say that in a fictional text the story tells something happening in non-testimonial worlds. Fictions can be possible in other dimensions than the witnessed. However, testimonies must be completed with new testimonies; the historical text is an ever-open document. According to Danto, historical stories are not fantastic stories because:

A historical sentence must refer to an event that occurs later, which is why historians should never feel satisfied that all has ever been said about an event. They always have new and more work to do. New events make possible the historians' continuing job. [...] On the realist view of interpretation, nothing can happen after the fictional book ends to change the sentences within it. Historical narratives, conversely, are not so constrained just because the real world goes on.²⁶

What Danto's words are implying is that the historical text must be *renewed* - it must be directly or indirectly certified by some existential experience in each generation, in other words, someone (anybody not just the story-teller) must have been contemporary to the related facts and that contemporaneity must be confirmed by each new generation.

²⁵ Foucault, Michel. *The Order of Things. An Archaeology of the Human Sciences*. Tavistock Publications, 1970. Preface, p. XVII.XVIII.

²⁶ "Afterwords: An Introduction to Arthur Danto's *Philosophies of History and Art*." Author(s): Lydia Goehr. Source: *History and Theory*, Vol. 46, No. 1 (Feb., 2007), pp. 1-28 Published by: Wiley for Wesleyan University Stable URL: <http://www.jstor.org/stable>. Accessed: 26/04/2014 02:32

This aspect of the text, open for new testimonies may change the whole interpretation of a historical presentation.

The testimonial character of the strict historical text

Then, an important distinction that must be made is that between *testimonial* and *non-testimonial* text-presentations. The death of e.g. Charles XII of Sweden (Presentation 11) is well documented through many important sources that *witnessed* the action.

The exact circumstances around Charles' death are unclear. Although there were many people around the king at the time of his death, there were no witnesses at the actual moment he was struck. A popular but unproven theory is that the murder was an act of conspiracy made by his sister's (Ulrika Eleonora) husband, Fredrik, who was crowned Fredrik I. One claim is that the killer was one of his Swedish compatriots, and asserts that the enemy guns were not firing at the time Charles was struck. Suspects in this claim range from a nearby soldier tired of the siege who desired to put an end to the war, to Charles' own brother-in-law, who profited by the event by taking the throne as Frederick I of Sweden.

Presentation 11: A testimonial presentation.

It is possible to consider these documents “historically incomplete” because the lack of confirmation of some facts. However, this meaning of “historic correctness” is not what we mean as “testimonial.” That no witness can describe exactly the developments of the facts, is not important to define what we mean as testimonial. All the possible descriptions of the facts *are testimonial* because the sources of information of the happenings *were contemporary to the historical fact*. But this testimony is not a fact but an interpretation of someone that must be reinterpreted by each new generation. The testimonial character of a presentation is associated to the alter Ego of history, the Who-switch

which is concrete and associated to concrete When -and Where switches. In Borges' story about the Chinese Encyclopedia for example, no testimony could be recognized. But is not only in fictional stories that non-testimonial text are relevant. Let see the following presentation of human evolution:

Human evolution is the process leading up to the appearance of modern humans. While it began with the last common ancestor of all life, the topic usually covers only the evolutionary history of primates, in particular the genus *Homo*, and the emergence of *Homo sapiens* as a distinct species of hominids (or "great apes"). Genetic studies show that primates diverged from other mammals about 85 million years ago in the Late Cretaceous period, and the earliest fossils appear in the Paleocene, around 55 million years ago. (Wikipedia)

Presentation 12: A presentation of the human evolution

We consider that Presentation 12 is *non-testimonial* because nobody could have been a contemporary of this process. Other non-testimonial presentations could be for example the presentation of the *Big Bang* explosion as the origin of the universe; the Freudian presentation of the murder of the ancestral father and the Marxian theory about the role of the hand and labor for the development of humanity. At the other hand, texts that e.g. report "memories", are always testimonial because someone must had been contemporary to the recording act.

Tangible and intangible historical matters

The historical presentation shows degrees of tangibility respective intangibility. If the text-presentations are about tangible matters –as battles, political events, coronations, or anniversaries, they usually are

described simply as “history”. It is as if these historical items were more material than pure emotions and ideas. On the other hand, if the text-presentations are about “intangible” matters, as ideas, cultural expressions, emotions, dreams, cognitions, ideological contents or simply “mentalities”, they are often described by the formula: “X” + “history” as in “cognitive history”, or, “history” + “of Y” as in “history of ideas”; “history of mentalities”, etc. Now, if all history is about events but no every event is tangible, what is *tangibility*? Tangibility has to do with the framing of an event into the Euclidian space and into the chronological time. For example, the history of psychoanalytical ideas is a history of a series of intangible events; however, if some of these ideas can be dated, they become tangible data and therefore their frame changes from “history of ideas” to simple “history”. Let us see the following example: András Pöstyényi wrote in his commentary to the Swedish translation to Freud’s *The Interpretation of Dreams*, that the birth of psychoanalysis could be dated to the 24th July 1895, the day in which for the first time Sigmund Freud *analyzed a dream*; the dream he dreamt the night of July 23 and which is known as “Irma’s injection”. So, until we knew this date, psychoanalysis was an intangible *movement*, a *process*, a *program*, a *method*; after that, it became an historical event. Is not so easy to specify the date of birth of an idea or complex of ideas, but when this is possible, as in this case, the presentation turns to be tangible-historical, reporting about tangible facts. As we can deduce from above, the relationship between the historicity of intangibles and the frames of space and time are necessarily vague. Of course, historicization is necessary but the limits of each period must

be unstable. Further, periodicity of intangibles means much more than only time-frames. For instance, in his book *Five Faces of Modernity*²⁷ Matei Calinescu explained the richness of historical categories showing that they have three fundamental implications:

- a) An eidetic-historic term imply a *value judgment*, positive or negative (for instance, we may like or dislike “baroque” art or, more generally, things that strike us as “baroque”);
- b) An eidetic-historic term *refers to a particular segment of history or “period”*, depending very much on the context and the concerns of the user;
- c) An eidetic-historic term describes a “type”, which may have been more frequent in a certain historical period, but can have been illustrated in other periods as well (we can find a “romantic” style in the work of a contemporary artist).²⁸

Intangible events used to define periods as “Romanticism” or “the Enlightenment” can be applied to a very flexible chronological scale of events and therefore is important to distinguish between pure “historical events” from “eidetic-historical” events. Periods that had got their names from tangible events as e.g. “the stone age” referring to a technological era can be considered as chronologically determined. That the tangible event has spatial and temporal limits is not an obstacle for being found in different points of the chronological scale, as is the case of “the slave economic system” which can be associated to Antiquity, to Modern Colonialism and to the labor camps of the Nazis.

²⁷ *Five Faces of Modernity: Modernism, Avant-Garde, Decadence, Kitsch, Postmodernism*; Duke University Press, 1987.

²⁸ Calinescu Matei. *Five faces of Modernity*. Dike University Press. 2006; see p.87.

Chapter 2: Remembering and the historical extrapolation

The porosity of the historical presentation

“Extrapolation” (meaning, “to infer or estimate by extending or projecting known information”) is a form of conclusion deduced from at least two stories. It arises because of the porosity of memory. This is why, in storytelling, we may refer to the story’s diegetic world, the internal world created by the story. Let us first understand what we mean with the porosity of the historical presentation. It could be considered a puzzle that has turned into an *enigma*, a puzzle in which *some pieces are lost forever*. These missing pieces must be reconstructed by extrapolative acts. History is not the same as the “past”; the past includes everything that happened, while *history is the remaining pieces of what happened*. History arises from the impossibility of retaining everything that happens. That can be illustrated by one of Borges’ fiction stories “Funes the Memorious”:

We, at one glance, can perceive three glasses on a table; Funes, all the leaves and tendrils and fruit that make up a grape vine. He knew by heart the forms of the southern clouds at dawn on the 30th of April, 1882, and could compare them in his memory with the mottled streaks on a book in Spanish binding he had only seen once and with the outlines of the foam raised by an oar in the Rio

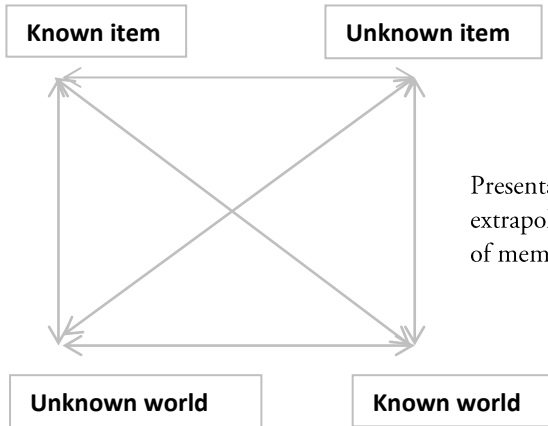
Negro the night before the Quebracho uprising. These memories were not simple ones; each visual image was linked to muscular sensations, thermal sensations, etc. He could reconstruct all his dreams, all his half dreams. Two or three times he had reconstructed a whole day; he never hesitated, but each reconstruction had required a whole day. He told me: "I alone have more memories than all mankind has probably had since the world has been the world." And again: "My dreams are like you people's waking hours. And again, toward dawn: "My memory, sir, is like a garbage heap." A circle drawn on a blackboard, a right triangle, a lozenge—all these are forms we can fully and intuitively grasp; Ireneo could do the same with the stormy mane of a pony, with a herd of cattle on a hill, with the changing fire and its innumerable ashes, with the many faces of a dead man throughout a long wake.²⁹

The impossibility of a whole-memory as Ireneo's memory in which everything could be conscious and in which each elementary part could be present in consciousness at the same time, is what makes history possible and necessary. The porosity of memory opens for the movement of consciousness into the future. A complete memorization of the present would imply the constant repetition of each experience, the ever return to the same point. To remember is always a testimonial act built on extrapolations into the future. Remembering is related to the act of "looking for" between a given reality (the actual story of a given present) and the recalled story of a past time which will be achieved in a nearly future (the future time in which the recalled memory become actual). Let see a table of the possible relations between consciousness and memory:

²⁹ Borges, Jorge Luis. *Funes, the Memorious*: <http://www.srs-pr.com/literature/borges-funes.pdf>

Looking for something unknown	In a Known world	Finding
Looking for something unknown	In a Unknown world	Exploring
Looking for something known	In a Known world	Investigating
Looking for something known	In a Unknown world	Searching
Presentation 13: “Looking for” in relation to knowledge.		

From our table of possibilities is possible to deduce that the four alternatives are relevant for the historian but with different importance. The act of “exploring” for example, refers to a blind act of looking for which is not what characterizes the essentials of the historian’s work. In addition, the act of “investigating” is important but it is too superficial to explain the historical presentation. On the contrary, the acts of “finding” and “searching” assume the porosity of memory and its specific combination of awareness and obliviousness. Both these acts characterize the strict historical extrapolation from the known to the unknown and vice versa.



Presentation 14: Diagram of the extrapolative “jump” over the “holes” of memory:

Only when in remembering we *search* and/or *find* is when remembering becomes relevant for the historical discourse. Therefore, any study of the historical presentation must be related to these two acts of “looking for”.

Searching

Sartre studied the extrapolative character of searching as the expression of what he called *nihilating* processes, chains of *négatités* aimed to achieve the presentation of what “it is.” Sartre gave us an example:

I have an appointment with Pierre at four o’clock. I arrive at the café a quarter of an hour late. Pierre is always punctual. Will he have waited for me? I look at the room, the patrons, and I say, “He is not here.” Is there an intuition of Pierre’s absence, or does negation indeed enters in only with judgment? At first sight it seems absurd to speak, here of intuition since to be exact there could not be an intuition of nothing and since the absence of Pierre is this

nothing.³⁰

Sartre concluded that *nothingness* is ontological and therefore prior to the logical negation we use to express it. To “looking for” is the same as projecting a solution into the future of a presentation that is expected but is not present. The absence of Pierre is an ontological “hole” in a presentation that is “blurred” by the act of searching as in the visual Presentation 15. To search must then be founded in the negation of a given lifeworld, the entertaining of presentations that are plenty of “holes” to be filled with future presentations. These holes are the expression of the multistability of the lifeworld, which can be conceived “with Pierre” and “without Pierre” as well, then, the extrapolation of searching consists in opening for the multistable *future* of a presentation through *speculation*:



Presentation 15: A visualizing searching-presentation positing the nihilating act of “searching Pierre” in Sartre.

³⁰ Sartre, Jean-Paul. *Being and Nothingness*, p. 33-34.

Sartre continues:

Popular consciousness, however, bears witness to this intuition. Do we not say, for example, "I suddenly saw that he was not there." Is this just a matter of misplacing the negation? Let us look a little closer. It is certain that the café by itself with its patrons, its tables, its booths, its mirrors, its light, its smoky atmosphere, and the sounds of voices, rattling saucers, and footsteps that fill it the café is a fullness of being. And all the intuitions of detail which I can have are filled by these odors, these sounds, these colors, all phenomena which have a transphenomenal being. Similarly Pierre's actual presence in a place which I do not know is also a plenitude of being. We seem to have found fullness everywhere. But we must observe that in perception there is always the construction of a figure on a ground. No one object no group of objects is especially designed to be organized as specifically either ground or figure; all depends on the direction of my attention.³¹

Searching for Pierre implies the dissection of the imagogony of Pierre against the background of the café, zooming-in and out the faces in the café and joining them with memorized presentation of Pierre's identifying codes. To search implies the organization of the given embodiment. I will describe this extrapolative process as *vectorizing* the given ordines of the lifeworld into new future *ordines*; in Sartre's case, he vectorizes the given presentation of the café in the searching for Pierre. The example presents the process of searching as the unconscious montage of a non-yet-positing unit (the future café *with* Pierre) against the opaque background of presented units (the current

³¹ Sartre, Jean-Paul. p. 33-34.

café *without* Pierre). In Sartre's example, the extrapolative montage consists on applying the rules of zooming and joining the parts of the presentation of the café:

When I enter this café to search for Pierre, there is formed a synthetic organization of all the objects in the café, on the ground of which Pierre is given as about to appear. This organization of the café as the ground is an original nihilation. Each element of the setting, a person, a table, a chair, attempts to isolate itself, to lift itself upon the ground constituted by the totality of the other objects, only to fall back once more into the undifferentiation of this ground; it meets into the ground. For the ground is that which is seen only in addition, that which is the object of a purely marginal attention. Thus, the original nihilation of all the figures that appear and are swallowed up in the total neutrality of a ground is the necessary condition for the appearance of the principle figure, which is here the person of Pierre.³²

Vectorization implies the projective act of “focusing” on the individual aspects of an ordogonomy:

This nihilation is given to my intuition; I am witness to the successive disappearance of all the objects which I look at –in particular of the faces, which detain me for an instant (Could this be Pierre?) and which as quickly decompose precisely y because they “are not” the face of Pierre. Nevertheless, if I should finally discover Pierre, my intuition would be filled by a solid element, I should be suddenly arrested by his face and the whole café would organize

³² Sartre, Jean-Paul. *Ibid.*

itself around him as a discrete presence.³³

Vectorizing as searching is the *negation* of a given ordogonomy and the projection of that ordogonomy into other future ordinal solutions. These alternative solutions are resumed in a question: “could this person be Pierre?” manifested as an alternative presentation superposed to each face-presentation on the scenario. Searching-presentations have a narrative structure: “Pierre could be here, talking with...” But, “he also can be there because...” Vectorizing is then an historical extrapolation because compare stories from different periods but it is partial because it stops and remains a *speculative movement*.

Finding

I distinguish between searching and finding depending on the role of memory and memory-like devices in the process of “looking for”. If I do not know what I am looking for in contrast to a well-known background, I say that I am *finding*. To find is to match positivities in an already existing and well-known order; the unknown against a well-known background. Finding can be understood as *matrixizing* known items associated to emotive inner states as wonderment, shock, admiration, and surprise (eureka!). Sartre’s example can also be helpful—with some modifications—to the study the act of *finding*: “I arrive to the café and the waiter tells me that someone “has been searching for me”. I ask the waiter for some more information about this “someone”. He says that the person who searched for me was “a woman with glasses, approximately sixty years old with white hair.” Notice that the situa-

³³ Sartre, Jean-Paul. *Ibid.*

tion is quite the opposite than in Sartre's example. I must find a person who matches this description from a set of names and descriptions of persons that I already know (that I "have" in consciousness as a mnemogonic order.) It is as if I already knew every client at the café, and must find out if the woman who searched for me, is one of the members of this collection. Finding is an extrapolation based on an event from the past: "the visit of someone." Finding as extrapolation is the process lying behind the development of memory devices as the encyclopedia. The term "encyclopedia" comes from the Latinization of the Greek *eu-kuklios paideia*, which means "the perfect circle of learning and education". Until the days of the rise of modern philosophy, the concept of encyclopedia was reduced to a mnemogonic story. This account of the past showed clearly the characteristics of *finiteness* necessary to find something unknown in a known world. Sir Thomas Elyot seems to have been the first to use the term in modern times in the *Book of the Governor* (1531). In French, the word appeared in *Pantagruel* of Rabelais (1532). As a title of a book, the word appears first in Paul Skalich de Lika, *Encyclopaediae seu orbis disciplinarum tam sacrarum quam profanarum epistemon*, Basel, 1559.³⁴ However, as a kind of order, we know a 2000 years old example, the *Naturalis Historia*, written in ca. 77 CE by Pliny the Elder. For Francis Bacon and the early modern philosophy of science, the heritage of the classic art of mnemogonics was clearly insufficient. The art of memory of Simonides reported by Cicero in his *De oratore* could only provide a very small and instable amount of memories, which confronted with larger amount of new items to memorize easily collapsed into an undifferen-

³⁴ Quoted from Olga Pombo: "Enciclopédia e Hipertexto", 2006.
<http://www.educ.fc.ul.pt/hyper>

tiated *cumuli*. We can follow the relationship that Bacon had to the *ars memorativa* in the *Novum organum*, where he expands the classical insights of the art with his own. To achieve these goals, Bacon defended strongly the importance of the “table”—*coordinaciones instantiamm*—as the first systematic treatment of the 1-1 reference principle, which became the principal characteristic of the modern tools of memory :

In the *Novum organum* (II, X), for example, he said: “Natural and experimental history is so diverse and scattered that the intellect is confounded and almost fragmented unless it is reduced into some fit order. It is therefore necessary to use tables and *coordinaciones instantiamm* so that the intellect can operate on them.” The famous Baconian *tabulae* are seen as an integral part of the *ministratio ad memoriam* in the *Novum organum*. These tables have a precise function: the organization and ordering of the contents of the natural histories. Once the material has been organized into the three *tabulae* the intellect possesses an ordered series of facts, it is no longer “almost fragmented”. This method was later developed into what Bacon called the “new induction”.³⁵

According to Paolo Rossi, Bacon’s inductive process has its origins in the method of the *tabulae*. The index as a “table” was the Baconian solution to the question about the closeness of the extrapolation of finding. For Bacon, the universe is no more a labyrinth; when the universe is transcribed into the structure of the table, it becomes finite and decidable. From now, the finite world can be distinguished from the infinite world of the unknown.

³⁵ Rossi, Paolo; p. 120.

The breakpoint of the world of resemblances and the rise of finding and searching

The crucial and definite steps, which made possible to distinguish finding-ordognomies clearly from searching-ordognomies, were taken during the 16th Century. During the 16th Century the art of ordering the universe as mnemognomies become definitively obsolete with the radical growth of available stories after the discovery of America, which made mnemognomic developments unpractical. This was the second major revolution in the processing of memories—the first major revolution was that of the development of writing during the fourth millennium BC. But it was during the 18th Century when the demands of late modern history could not be satisfied anymore with pure inventories that allowed only to find or to search separately. Instead, modern thought wanted *to connect searching to finding*, making possible for the first time the realization of total extrapolations. The change of perspective affected that which Ernst Cassirer described as the opposition between *l'esprit de systeme* and *l'esprit systematique*,³⁶ Gunnar Broberg explains:

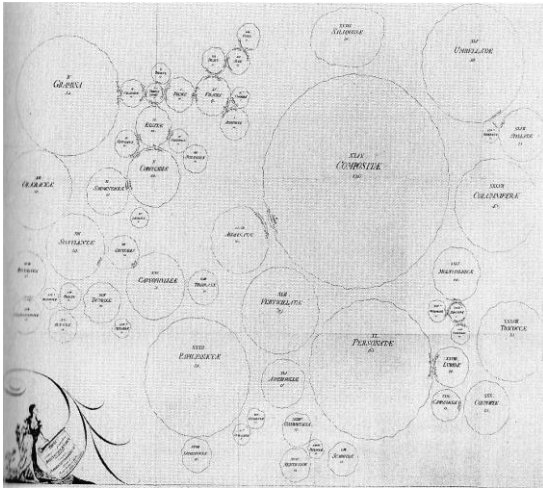
Both Natural history and encyclopedism had experienced the increase of quantity, of boundless, unmeasurable information. The encyclopaedic enterprise, aiming at order, totality, and coherence, had exchanged the esprit *systematique* for the esprit de *systeme*. In Natural history, epistemological criticism and awareness of nature's richness had made the great chain of being succumb to its own weight. The metaphors of "chain" and "scale," both very popular

³⁶ Ernst Cassirer. *The philosophy of the Enlightenment*. Princeton University Press, 1951. 22f. (Quoted by G. Broberg in "Broken Circle. The Quantifying spirit". Ed. Tore Frängsmyr, University of California Press Berkley, 1990; p. 45.

during the 18th century, gave way to metaphors less apt for classification, such as “map” or “net,” used by, among others, Linnaeus, Haller, and Hermann. The geographical imagery recurs in Adanson’s “orbe.” In a similar manner, d’Alembert used the older metaphors “circle of knowledge” and “tree” in elucidating the concept of encyclopaedia, while Diderot preferred “growing city” and “machine.” The critics (Kant, Hegel, Törneros) spoke of the modern encyclopaedia as an “aggregate” or a “grocery store.” There is a clear progression from symbols appropriate to a traditional classification to symbols suited for an open-ended assembly. The systematic “encyclopaedia” in the old sense of “whole circle of knowledge” was breaking up. This broken circle is one aspect of the critical work of the Enlightenment. It might be possible to argue that such a shift reflects a general development during the second half of the century from a “geometrical” to an “arithmetical” mentality, when systems and stable structures mattered less than quick, irregular information.³⁷

Consciousness about the “broken circle of memory” implied the urgent necessity of a permanent *updating* of encyclopaedias and dictionaries. The period between the 17th and the 18th Century then, shows an important inflexion point in which projective finding extrapolations combines with introjective searching extrapolations to embrace the infinite inside the finite.

³⁷ Broberg, Gunnar; p.71.



Presentation 16: “This map, believed to be based on a drawing by Linnaeus, shows continuity between some groups, as well as gaps requiring more knowledge: Linnaeus, Praelectiones in ordines naturalium plantarum, ed. P.D. Gieseke (Hamburg, 1792), facing p.623.’ (Quoted from: Broberg, Gunnar. “Broken Circle.” p. 245).

What we mean is that between the time of the philosophy of Bacon and Descartes and the classificatory work of Linnaeus and the Encyclopedists, the ordering process moved from *bridging* the world (conclusions based on labyrinthic extrapolations that confused searching with finding) to *embracing* it (conclusions that discriminated extrapolations based on searching and finding). The consequence was the possibility of work with open ordines shaped as searchable, reducing finding extrapolations to the building of supporting taxonomies. About this Broberg says:

The word “quantitative” applies to natural history during the second half of the 18th century in two distinct but related ways: as characteristic of the object and of the method of study. As for object, the sheer number of known and estimated forms forced new approaches to the storage and retrieval of information; as for method, these new approaches were instrumentalist and, in the dominant system of Linnaeus, mathematical. These features—the overwhelming flow of information and the determination to in-

ventory and survey it for useful purposes—characterize much of the learned activity of the late Enlightenment.³⁸

There is another aspect related to the action of “looking for” that is relevant for the study of the general forms of finding and searching. During the Renaissance was important to determine the meaning of “method”. The debate between Aristotelians and the Humanists was important to determine whether “method” was a way of *acquiring* knowledge or of way of *displaying* it.

Method was a topic of enormous interest during the sixteenth century. Aristotle’s words in the Physics were difficult to interpret, and all sides claimed an inheritance from him. Ramus’ interpretation of the lines in question made it possible for him to maintain that his method was strictly Aristotelian. The Aristotelians, for their part, largely followed Averroes’ commentary on this passage, which led to a very different conclusion. The problem was to determine whether method was a way of acquiring knowledge or of displaying it. [...] It became obvious that more than one method could exist and that there was a difference between *methodus* and *ordo*. The latter term came to be applied to a pedagogical method, a way of teaching or displaying.³⁹

It became obvious that it is a difference between the *methodognomic* and the *technognomic* orders.⁴⁰ We will argue that because of the rise of modern philosophy, the act of “looking for” through positivities in “finding” has been understood as “technognomic”, while the act of “looking for” through negativities in “searching” has been understood

³⁸ Broberg, Gunnar; p. 45.

³⁹ Stanford Encyclopaedia of Philosophy. “Petrus Ramus”. (2006) by Erland Sellberg.

⁴⁰ *Ibid.* 2006 by Erland Sellberg.

as “methodognomic.” In short, that will mean that, after Galileo Galilei and René Descartes, become possible for the first time in history to think about “methodology”. That is obviously the case for Descartes’ in *Discourse de la méthode*, published in French in 1637. It is possible to find a connection of historical character between this discussion and the process of breaking the circle of labyrinthic classification and the rising of modern methodognomic thought. We believe that is possible to associate the concept of “method” to searching extrapolations in which we are sure about what we are searching for in an unknown world.

The enigmacy of history

Thomas Kuhn’s historiography recognizes the richness of information available to the historian but in this richness, not everything is lying served to pick up:

The historian at work is not, I think, unlike the child presented with one of those picture puzzles of which the pieces are square; but the historian is given many extra pieces in the box. He has or can get the data, not all of them (what would that be?) but a very considerable collection. His job is to select from them a set that can be juxtaposed to provide the elements of what, in the child's case, would be a picture of recognizable objects plausibly juxtaposed and of what, for the historian and his reader, is a plausible narrative involving recognizable motives and behaviors. Like the child with the puzzle, the historian at work is governed by rules that may not be violated. There may be no empty spaces in the middle either of the

puzzle or of the narrative. Nor may there be any discontinuities.⁴¹

This puzzle has to be solved using data that is conscious and *unconscious*.

According to proponents of the covering law model, a historical narrative is explanatory to the extent that the events it describes are governed by laws of nature and society to which the historian has conscious or *unconscious* access.⁴²

The use of the term “unconscious” is very rare in Kuhn’s texts and it appears to be a *parapraxical* mention. The historian can get only a part of the data, he wrote, “not all of them (what would that be?).” I ask myself also, what would that be to get *all the data*? Of course, if both Kuhn and I are aware of the silent presence of unconscious data, it must be important to take the miss of these into account. Already the notion of “puzzle”—which for Kuhn defines the work within “normal science”—is referring to an *implicit* or *silent* order that the historian work will expose. The analogy of the puzzle does not open to a variety of interpretations either, because it is not any relativistic puzzle, but one with rules that “may not be violated.” However, the analogy of the puzzle is not good enough because in a puzzle there is only one possible solution and that is not a bona fide description of the work of an historian. Looking for a suitable analogy, the analogy of a “riddle” is better, but still implying only one possible interpretation. Much better could be to use the term “enigma,” (Latin *aenigma*, from the Greek *ainigma*, “to speak obscurely or speak in riddles”, from *ainos* “fable or

⁴¹ Kuhn, Thomas. *The Essential Tension*; p. 12-13.

⁴² *Op.cit*; p. 15 (emphasis mine).

riddle,” a word of unknown origin certainly connected to the speaking manner of the gods.) Obviously, riddles are cognitive problems in which some variables are known and others are not. The difficulties of a riddle depend on just the balance between the known and the unknown. Some riddles are deductive, others inductive. Some riddles have to be solved with experiments, others with interviews, others with mathematics and others by research in archives or libraries. Nevertheless, some riddles are *enigmas* if they are “historical riddles”. The solution of a historic riddle or enigma, supposes the study of all the information available and more—including in this “more” the unconscious residues embodied in culture. With “more” we mean that which the interpreter gets from his or her own embodied experience. This “more” is generational and untransferable. An enigma is not an abstract cognitive problem, but a concrete one, it is a cognitive problem converted into an “existential situation”. An enigma supposes heuristic action, solving it in our own existential time; from the abstract and pure-ideal philosophical reflections concerning truth and knowledge to the most concrete technological devices.

An enigma works out some “missing” part of the reported data, through the implementation of extrapolative presentations. For example, Bartolomé de Las Casas applied this. In his *Historia de las Indias*, Bartolomé de Las Casas studied, under the subtitle “Old cosmographical news which could have influenced Columbus to perform the travels which ending with the discovering of *Indias*”, five different reasons explaining the event of the discovering of America. Four of them have to do with cosmographic data, such as the roundness of the earth, the distance to *Indias*, etc. Las Casas’ analysis is astonishingly modern because he tried to find a connection between the scientific and tech-

nological knowledge of his time and the historical development. Until this point, Las Casas has been “investigating” the known facts. However, one of Las Casas’ five motives is different, more traditional, and paradoxically more interesting to our purpose than the others. According to Las Casas, Columbus had heard from other sailors that “nearly all was already discovered” and that the “only missing part was the space between East Indies and the islands of Cape Verde”. We know today that other sailors had traveled in direction towards the New World. For example, the Portuguese João Vaz Corte Real could be the first modern European to visit America. He presumably explored North America in the year of 1472, that is, twenty years before Columbus. Many of these travels were “secrets of state”, and therefore very little are documented about them. Consequently, it is possible that Columbus got some information about these travels through his contacts with other sailors. This is an extrapolative conclusion that admits the possibility of unknown information; now Las Casas is *finding*; he is looking for information in his time’s databases. When in history a behavior or an event, which is clearly documented, is still in some sense *unexplainable*, we said that it is an “enigma”. The possible information that Columbus could or not have received from earlier travelers belongs to the sphere of the enigmatic because it is *a gap* between the information that we have about his knowledge and his behavior. We could say that there are many enigmas connected to the period of the discovering and conquest of America. In the book *Sails of Hope: The Secret Mission of Christopher Columbus* from 1973 Simon Wiesenthal considered the possibility that the explorer might have been at least part Jewish. Because of this supposed ethnic origin Wiesenthal entertained the hypothesis that the travel of Columbus to

America carried a “secret mission”, that of looking for a better place for the Jews expelled from Spain. In this book, Wiesenthal admits the possibility that also Las Casas could have been part Jewish. Such an interpretation implies a chain of extrapolations that changes the whole interpretation of the historical facts. In this example, Wiesenthal is *searching*; he is making hypotheses about an unknown world.

Beside Columbus’ motives, we can also refer to Amerigo Vespucci’s bizarre significance to the transmission of the earliest information about the magnitude of his traveling. We do not know to what extent Vespucci was a liar or to what extent he could not reveal secret information. Our picture of Vespucci vacillates between considering him as dilettante and considering him a great sailor. No information can today give us a definitive answer about that either. Another example of enigmacy taken from the same period is provided by the amazing behavior of the Aztecs in Mexico, when they confronted Hernán Cortés and the Spaniards for the first time.

Why was Las Casas interested in explaining the motives of Columbus’ travels? Why should such a question be interesting in his time? In which sense would his time’s interest in historical explanation be different from our time’s interest in answering these questions? Can we be sure that the motives that made Columbus’ travels possible are better known to us than to Las Casas? Our explanation of these facts differ from Las Casas’ because we believe that we know much more about how people act, how states and governments think and act, how societies are structured and behave than Las Casas knew. In our explanations, we can refer not only to the cognitive horizon of the Renaissance but also to the economic development of the countries of Western Europe and especially to the development of “capitalism” and

of capitalist international trade competition, concepts that were not available to Las Casas. Therefore, we have “more information” today, we can deduce what “really happened” with more accuracy. However, our improved competence in understanding Las Casas’ time rests on our perspective that interprets Las Casas’ time from our own existential experience. We have learned from the events of the past and we have learned from the errors of historians such as Las Casas. We also understand why most of the information about these travels was kept secret. We know that any information that generates advantages of any kind to anyone should be kept a secret. This is very important in politics and in the world of business as well, and has an effect on technology and science. We also know that this discretion is only temporal, that finally the novelty of the reserved knowledge is over and the utility of secrecy too. Nevertheless, what can we say about the actions that did not depend on secrecy? What can we say about the conditions of action originated on unconscious circumstances? What can we say about that which Las Casas and his epoch could not conceive at all? What can we say about the influence of the Renaissance’s labyrinthic horizon on Las Casas’ comprehension of history? Was it possible for Las Casas to think modernly when modernity was only an *unconscious predisposition*? The differences of informational character between Las Casas and other times can be studied as an “angeletic question”; Rafael Capurro introduced the term as follows:

I call angeletics the study of messengers and messages. This word is derived from Greek *angelos/angelia*, meaning messenger/messages. [...] Hermes is first and foremost a messenger and secondary an interpreter and translator. In sum, angeletics deals with issues related to origin, end purpose and message content, power structures,

techniques and means of diffusion, ways of life, history of messages and messengers, coding and interpreting, and psychological, political, economic, aesthetic, ethical and religious aspects.⁴³

The “discovery of *Indias*” was a revolving historical event of massive consequences. Few events before and after can be compared to this. As such, it appears as a historical metaphor (or metaphors) for any previous and later event. It acts as an historical track for other actions and for the interpretation of these actions. In the same sense, the meeting for the very first time of two very different cultures as the Aztecs and the Spaniards produced a metaphor of the *encountering*, which acts as a paradigmatic case for any other cultural encountering producing new extrapolative alternatives.

⁴³ Rafael Capurro - John Holgate (eds). *Messages and Messengers. Angeletics as an Approach to the Phenomenology of Communication*. Von Boten und Botschaften. Die Angeletik als Weg zur Phänomenologie der Kommunikation, Bd.5, München: Fink 2011. [“The phenomenon of messengers and messages can be analyzed in social, technical, and natural contexts as well [...] Eventually, I would like to address the relationship between angeletics and hermeneutics (Capurro, 2000). Hermeneutics was one of the main schools of philosophy in the 20th century. Beyond scholarly disputes, we can say that one of the main results of philosophical thinking in the 20th century has been the awareness of the interpretative nature of human knowledge. This is valid, for instance, for Karl Popper, for whom scientific knowledge is basically conjectural and subject to empirical falsifications, no less than for hermeneutics as addressed by Hans-Georg Gadamer. Each interpretation presupposes a process of message transmission. The “hermeneutic circle” no less than the “logic of scientific discovery” are implicitly located within the angeletic circle.”]

Chapter 3: The switches of memory

A schematic reconstruction of the history of the art of remembering can be presented as the consequence of the development of fundamental historical switches. We will divide the study of the foundational orders of memory in three levels: 1) the expository orders; 2) the narrative orders and 3) the extrapolative orders. These levels do not correspond to an exact chronological order of occurrence.

The expository switches

“Looking for” in discourses, means looking for visual (written) or aural marks; “to search” implies making hypotheses about a future state of the present world that includes that mark. On the contrary, “finding” in texts means that we look for an unknown mark in a known collection of marks; to find implies the present projection of a past state in which the unknown mark was available in our collection. In general, the searched and found presentation is always a visual or aural presentation. Searching and finding in texts become a conceptual task only after the handling with marks. Another way to approach the issue could be to say that these marks “make sense” independently of their “meaning”. For us, *sensefulness* is the pragmatic aspect of a text presentation and *meaningfulness* is its conceptual value. About the

sensefulness of a presentation can be said that every presentation is at least expository and in that case, always senseful. As a tool, the written presentation can be studied from the perspective of its eidetic material—image, letters, numbers, etc.—and from the point of view of its *usability*. An example of sensefulness in text's presentations could be what Foucault refers as “statement”:

Let us look at the example again: the keyboard of a typewriter is not a statement, but the same series of letters A, Z, E, R, T, listed in a typewriting manual, is the statement of the alphabetical order adopted by the French typewriters.⁴⁴

The Foucaultian statement is the pure expression of language as a tool. The example is illuminating revealing the nature of the writing sign and of the act of writing in general. However, as pure expository, the usability of the presentation “A, Z, E, R, T”, resides in expressing a certain *order*. It is a structure within the presentation, which reveals the organizational nature of language in a particular and concrete way. The pragmatic character of the text is that is always the expression of some order and therefore is *usable*. Looking for a word-mark is not the same that looking for a thing, and that is not the same as to looking for a person and, looking for *anything* is not the same that to looking for *something*. Which are the differences and in which sense are these differences relevant for the historical presentation? For instance, we have seen that looking for a person (the Who-switch) is typical for the strict historical presentation but not for the Natural historical presentation. Let us imagine the universe of written history occupied by

⁴⁴ Foucault, Michael. *The Archeology of knowledge and The Discourse on Language*. Vintage Books; New York; 2010, p. 86.

unordered What-units. Paradoxically, a perfect un-ordering can only be achieved by *perfect regularity* or *extreme complexity* so we can imagine a world dominated by the presence of the What-switch as one occupied only with the Foucaultian statements. Statements are meaningless but senseful embodiments of visual and audial mark-presentations. In extreme homogeneity, the ordogonomy will be broken by *under-determination* while in extreme heterogenic situations the ordogonomy will be broken by *over-determination*. With Bernhard Waldenfels words: “Pure simplicity and pure indifference would then be as much a boundary case as pure multiplicity and pure variety; both would bring us to the edge of any order.”⁴⁵ In such a world exclusively full of statements, looking for *meaningfulness* would be futile. In such a homogenous/complex reality, the limits in space and time will be undefined too. Because “everything is in it” and nothing “can be missed”, it could it be compared to the Freudian *Id*.

We can imagine that a possible step into a proto-order could be that of compiling things in a *stack* or *cumulus*. A cumulus will be an arbitrary order; it could be understood as the simplest exteriorization of *closeness*, using limits of distance in a non-specific way, introducing concreteness by answering only for the question of Which. In this initial stage, in which items would be selected from an unlimited assembly, their internal reciprocal position would be inconsequential. The cumulus would be an air-like “bubble” that opens to new members but without “beginning”, “middle” or “end”. In the cumulus however, exist some references that can identify its units; we say that its units are *findable*, as looking for which you already had. The cumulus is the expression of

⁴⁵ Bernhard Waldenfels; *Order in the Twilight*. Ohio University Press, 1996; p.2-3.

a scenario that surrounds the body in layers of pure substances in a non-specific way, always changing in form, size and dignity. Which-switches constitute that which we will call *typognomies*.⁴⁶ During the early times of Modernity, especially after the discovery of America, European thought collapsed under an overwhelming volume of *cumuli* of new Which-questions that restructures culture into new gatherings.



Presentation 17: A “stack” of ideograms in a Which-ordognoy or *cumulus*.

These ordines are “types” in the sense that they are *reconstructing* the lifeworld through the development of anthropognomic answers to Which-questions. This domain of order dominated strongly during the Renaissance and Early Modernity adopting the form of a *Cabinet of Curiosities*, as *cumuli* of artefacts. The term “curiosity” revealed the openness of this typognomy, which connotes some heterogeneity. In proto-museums and cabinets, these typognomic ordines still rely in memory-paths and in cultural habits. We can see in this kind of typognomy, the antecedents of a pan-informative system. That was the sense in which the *Cabinet of Curiosities* or the *Theatre of Knowledge* would be used. According to Giulio Camillo a *Theatre of Knowledge* could be a “universal machine” to be applied to the unordered natural

⁴⁶ I borrowed the term from the *Typocosmia* of Alessandro Citolini. According to some sources Citolini stole this ideas from Giulio Camilo's *Theatre*. See, Yates, Frances A. *The Art of Memory*; Pimlico, 2008, p. 235.

phenomena.⁴⁷ Typognomies were reinforced with the development of ordines that use *imprese* and *emblems* as referents. Robert Fludd can be seen as one of them that took the important step developing more sophisticated typognomies. The difference that Fludd made between “round art” and “square art” could exemplify the process of ranking the Which-answers in different layers. The “round art” referred to talismanic imagognomies, effigies of the stars, statues of gods and goddesses animated with celestial influences, and images of virtues and vices. The “square art”, at the other hand, posited corporeal things of men, animals and inanimate objects.⁴⁸

The ideal of a Cabinet of Curiosities was further developed into a special kind of furniture, as is the case of the Hainhofer cabinets. Philipp Hainhofer (1578-1647) manufactured this kind of cabinets in Augsburg during the first half of the 17th century:

The *Kunstkammer* was considered a *theatrum mundi*, which in its microcosm reflected the macrocosm and ordered and controlled the boundless multifariousness of the world. Just like the *Kunstkammer* the *Kunstschränk* was intended to represent the animal, the vegetable and the mineral kingdoms, all epochs, all materials and techniques, all handicrafts and arts, all human needs, occupations and interests.⁴⁹

⁴⁷ Paolo Rossi .Op.cit. p. 74.

⁴⁸ Frances A. Yates.Op. cit.; p.315.

⁴⁹ Boström, Hans-Olof; p. 318-320.



Presentation 18: Gustav II Adolf's Cabinet from Sweden, 1631. Words and things associated in an arbitrary order or *cumulus*.

The Kunstschränk was intended to work as a reservoir of knowledge, a findable matrix of the animal, vegetable, and mineral kingdoms, all epochs, all materials and techniques, all handicrafts and arts, all human needs, occupations and interests. However, the limits of its findability relied in the impossibility of the project.

Where-switches appeared with the development of maps, which introduce the dimension of *loci*. It is easy to distinguish the *maps* from the *cumuli* because maps are built on the ordogonomy of places emphasizing the *disposition* of the items. In this sense, furniture-ordines as the Kunstschränk, theatres and cabinets, could also be understood as very primitive and arbitrary Where-ordines.⁵⁰ I will give the name of *locignomy* (from Latin *locus*, a place, spot, and position) to this kind of order. Simonides of Ceos, founder of the art of *mnemogonomy*, structuring an artificial memory based on a Where-ordogonomy:

At a banquet given by a nobleman of Thessaly named Scopas, the poet Simonides of Ceos chanted a lyric poem in honor of his host but including a passage in praise of Castor and Pollux. Scopas meanly told the poet that he would only pay him half the sum

⁵⁰ Boström, Hans-Olof. "Det underbara skåpet. Philipp Hainhofer och Gustav II Adolfs konstskåp." Uppsala universitet, 2001; p. 315-316.

agreed upon the panegyric and that he must obtain the balance from the twin gods to whom he had devoted half the poem. A little later, a message was brought in to Simonides that two young men were waiting outside who wished to see him. He rose from the banquet and went out but could find no one. During his absence the roof of the banqueting hall fell in, crushing Scopas and all the guests to death beneath the ruins; the corpses were so mangled that the relatives who came to take them away for burial were unable to identify them. But Simonides remembered the places at which they had been sitting at the table and was therefore able to indicate to the relatives which were their dead. The invisible callers, Castor and Pollux, had handsomely paid for their share in the panegyric by drawing Simonides away from the banquet just before the crash. And this experience suggested to the poet the principles of memory of which he is said to have been the inventor. Noting that it was through his memory of the places at which the guests had been sitting that he had been able to identify the bodies, he realized that orderly arrangement is essential for good memory.⁵¹

Frances A. Yates certified the significance of the mnemognomics of *loci* in Rome:

The vivid story of how Simonides invented the art of memory is told by Cicero in his *De oratore* when he is discussing memory as one of the five parts of rhetoric; the story introduces a brief description of the mnemonic of places and images (*loci* and *imagines*) which was used by the Roman *rheto*rs. Two other descriptions of the classical mnemonic, besides the one given by Cicero, have come down to us, both also in treatises on rhetoric when memory

⁵¹Frances A. Yates. *The Art of Memory*. 2008; p. 17.

as a part of rhetoric is being discussed; one is in the anonymous *Ad C. Herennium Libri IV*; the other is in Quintilian's *Institutio oratoria*.⁵²

The Where-switches are the first steps towards a successful transcription into modernity of the labyrinthic What and Which residues of the first moments of culture. In the *De memoria* (II, 452a, 12-15) Aristotle stated how memory is connected to *loci*:

Sometimes the memory seems to proceed from places. The reason for this is that man passes rapidly from one step to the next, for example from milk to whiteness, from whiteness to air, from air to humidity, from humidity to a memory of autumn, supposing that one sought to remember this season.

Rossi quoted Iacopo Ragone da Vicenza in his *Artifialis memoriae regule* (1434) to explain this:

Memory places are quite different from images: memory places are no corners of a room, as some believe, but fixed images on which reliable images are written like letters on paper: memory-places are like matter, whereas images are like forms. The difference between them is the same as the difference between the fixed and the not fixed.⁵³

These locignomies that serve memory had to be very much like pure mundane presentations (e.g. the picture of a house). The sensefulness of the act of looking for increases after the activation of the Where-switch:

Therefore one must ensure that one has a house which is complete-

⁵²*Op.cit.*, p. 18.

⁵³ Paolo Rossi. p 15-16.

ly empty and unfurnished, and take care not to use monks' cells or the houses of strangers for memory-places because they are too similar to each other, and if you cannot differentiate between them, you might get confused. Choose a house in which there are twenty rooms, halls, kitchens, staircases, and the greater the difference between these places, the better. Make sure that these rooms and their contents are neither too large nor too small; select any five equidistant places in these rooms which (as we said before) are no more than about six, eight or ten feet apart. And begin as follows, always proceeding towards the left or towards the right, whichever is more appropriate for the layout of the house, so that you do not have to double-back on yourself. So let your memory-places follow the order of the house as it appears in reality, so that the imprinting of memory images may more easily be done according to a natural order.⁵⁴

The locignomy reconstructs memories artificially and it is different from memory as experience; locignomies are specifically developed as the first forms of transcriptional memory:

There are, then, two kinds of memory: one natural, and the other the product of art. The natural memory is that memory which is embedded in our minds, born simultaneously with thought. The artificial memory is that memory which is strengthened by a kind of training and system of discipline.⁵⁵

In short, we could summarize the fundamentals of the locignomic art observing that to remember is necessary to activate the Where-switch. This activation must follow the laws of congruency which is “material”

⁵⁴ Paolo Rossi. p. 17.

⁵⁵ *The Rhetorica ad C. Herennium* (III, 16-24); Paolo Rossi; p 8.

in the sense that it has to match the world in the same levels of power and size, point-by-point, line-by-line, plane-by-plane and place-by-place. Also, from color to color, texture to texture, etc. Paolo Rossi writes about the Ciceronian *ars memorativa*:

In order to practice the mnemonic art one must first establish a formal structure which can be used to remember any series of things or names. This formal structure—usually called a “chart” or “outline” (*forma*)—is reusable and is constructed arbitrarily: one chooses a locality (a building, portico or church, for example) which can be real or imaginary, and establishes within it a certain number of memory-places. The arbitrary or conventional character of these choices is limited by a certain number of rules concerning 1) the characteristics of the locality and its memory-places (spaciousness, solitude, brightness etc.) and 2) the order of the memory-places. The capacity of the formal structure governed the number of things one could remember: a locality with a hundred loci, for example, could only be used to remember a hundred names or objects: a great deal of time was devoted to the problem of the ‘multiplication of places’ or progressive enlargement of the structure.⁵⁶

The transcriptional movements based on locignomies demands that the existing relationship between the remembered and the lifeworld, must be as nearly as possible to everyday experience. For instance, the map of the world in Presentation 19 shows Jerusalem at the center of it, a locignomy that was congruent with contemporary everyday experience:

⁵⁶ Paolo Rossi; p 19.



Presentation 19: The map of the world with Jerusalem at the center; Heinrich Bünting (1545-1606). From: *Itinerarium Sacrae Scripturae* Magdeburg, 1581; Woodcut, 25.8 x 36.5 cm; Osher Collection.

Where-switches assume also other forms than maps e.g., they can assume the forms of *schemes*, *tables* or *trees*. For example the *Arbre de sciencia* of Lull in Presentation 20:



Presentation 20: *The Arbre de sciencia* of Lull.

In the *Arbre de sciencia*, composed in Rome in 1295, the “tree” diagrams are presented as a means to “popularize” the art and make it easier to learn. In this work, the encyclopedia is presented as an integral part of Lull’s projected total reform of knowledge. The basis of the encyclopedia, which is divided into sixteen trees, is the idea of the coincidence of the unity of knowledge and the unity of

the cosmos.⁵⁷

The *Arbre de sciencia* of Lull was a development of the tree of the Greek Neo-Platonist Porphyry. Porphyry wrote an introduction to Aristotle's *Categories* that included a tree-like scheme of dichotomous divisions. Porphyry's introduction was translated into Latin by Boethius and became the standard philosophical textbook in the Middle Ages.

Very close to the *dispositive* of Where-ordines are the When-ordines based on the measurement of the distances between the *loci*. These are the orders of calendars and watches, constructed upon the idea of measuring the distance between the disposition-nodes. The movement from pure Where-ordognomies to When-ordognomies can also be followed in the work of Ramon Lull. The dispositional character of the mnemognomies of Antiquity changes definitively with the volvelles of Raymond Lull. About this aspect of Raymond Lull's volvelles, Frances A. Yates wrote:

Finally, and this is probably the most significant aspect of Lullism in the history of thought, Lull introduces movement into memory. The Presentations of his Art, on which its concepts are set out in the letter notation, are not static but revolving [...]. These are simple devices, but revolutionary in their attempt to represent movement in the psyche.⁵⁸

Other examples of volvelle, is the *Calendar* of Johannes Regiomontanus (Venice 1476)⁵⁹; the *Organum Uranicum* of Sebastian Münster,

⁵⁷ Paolo Rossi; p.36.

⁵⁸ Frances A. Yates. *The Art of Memory*. Pimlico. London, 1996; s. 178.

⁵⁹ <http://www.mhs.ox.ac.uk/library/index.htm?pic5> (2010-12-30).

(Basel 1536) and the *Cosmographia* of Peter Apianus (Antwerp 1574).⁶⁰ The dynamic aspect of volvelles proposed a schema or structure that improved both memory and knowledge through the application of an association-device, an interpretation-aid and a source of new discoveries.⁶¹



Presentation 21: A ‘volvelle’ from Lull’s *Ars magna*.

Being the volvelle a *dynamic* device, it opened to the possibility of using mnemognomies to support an *investigative* art. Lull’s mnemognomies transcended the pure act of remembering, expanding it to “see beyond the veil of phenomenal appearances”, or the “shadows of ideas”, and “grasping the ideal and essential structure of reality”. We could take the term “cyclognomy” from Cornelius Gemma *De arte Cyclognomica* to name this kind of ordines. In this work, Gemma formulates a dynamic interpretation of the world connecting different ordognomic levels in an arrangement of seven concentric circles.

⁶⁰ <http://rnc.library.cornell.edu/Paper-exhibit/cosmo.html> (2010-12-30).

⁶¹ For a detailed account of the volvelle inside books in the world and in Sweden, see Sten G. Lindberg’s *Mobilien i böcker*. Bokvännen 1978; s. 87ff.

The narrative switches

History happens only to real human and therefore the strict historical text presents always an existential story. Who-switches open for or-dognomies based on presentations of the alter Ego. Who-switches prompted embodiment in expressions about existential quality and quantity, substance, matter and subject, universals, essences, causes, actuality and potentiality, unity and multiplicity. The immediate feature of the texts that activates the Who-switch is that of a *plain* story – a story without extrapolations. This plain story could be a story of facts recalled from documents or from other sources. These facts can be of intangible nature, as ideas or feelings, manners or any other intangible cultural manifestation and the Who-switch can be presented in more or less obvious manner. The plain story is a discourse that springs direct from the sources. Plain stories are often structured as commentaries to one or more historical documents and have the scholastic *Commentary* as its predecessor:

The commentary is the archetypical and basic scholastic genre; here I can only say of it that both the ethical and the practical demands of memorization suggest that composing commentaries will be important [...]. Practically, the presence of the whole work in the memory, coupled with its storage in the form of gobbets, any one of which can be recalled and juxtaposed to any other, will suggest and enable the composition of commentaries that have two important formal features, both of which are typical of scholastic commentaries. The first is that the scholastic commentary will take as its first object precisely the gobbets into which the work has been divided for memorizing, which means that it will treat in the first instance small units of the work, and only secondarily larger

units or the work as a whole. The second is that a comment on any one of these gobbets will presuppose knowledge of them all and may be incomprehensible without such knowledge.⁶²

As a commentary, the plain historical text will show a deep knowledge of all the possible parts of the commented documents. We can say that the quality of a plain text can also be measured by its *diegetic* capacity. The classical distinction between the diegetic mode and the mimetic mode of a presentation relate to the classical difference between the *epos* and *drama*. The *epos* relates stories by telling them through narration, while drama enacts stories through direct embodiment. While *mimesis* shows rather than tells by means of the action that is enacted, diegesis is the telling of the story by a narrator. The narrator may speak as a particular character or may play the role of the invisible narrator or even the all-knowing narrator (the meta-Who-switch) who speaks from above in the form of commenting on the action or the characters. Diegesis may concern elements, such as characters, events and things within the narrative. However, the author may include elements that are not intended for a primary narrative, such as stories within stories; characters and events that may be referred to elsewhere or in historical contexts and that are therefore outside the main story and are thus presented in an extra diegetic situation. Diegesis is multi-levelled: 1) the *narrator's level*, the narrator is not part of the story; 2) the *diegetic level*, which is understood as *the level of the historical characters*, their thoughts and actions; and 3) the *story inside a story level*, as when a character tells a story. When we come to the consideration of diegesis in historical texts, we find that the historical discourse can also be con-

⁶² Scholasticism: Cross-Cultural and Comparative Perspectives. José Ignacio Cabezón (editor); Suny Press, 1998.

sidered an epic form that utilizes dramatic elements. Historical concreteness manifests through the fact that *the storyteller chooses what to tell*. That is, based on some set of intentions, the narrator postulate a kind of story.

Nevertheless, narrations present events interconnected by *cycles of time and rhythm structures* with embedded conclusions derived from chronology. The impossibility of reversing the arrow of time, makes the chronological “force” of the narrated facts an implicit explanation. That means that the pragmatic aspect of the historical discourse implies also the activation of the How-switch. The narrative role of the story includes an explanation of the happenings: if you know *how* things happened, you know also, *why* they happened. About this Danto wrote:

If someone, for instance, has an automobile accident, and is asked afterwards to explain why (or to explain how) it happened, the answer naturally expected would be a narrative. Thus there is some justified inclination to say that historical explanations are simply narratives, and insist that this is all that ‘explanation’ is taken to mean in historical contexts.⁶³

We understand the historical narrative just as Danto does. In a pragmatic explanation, the How-answer takes over the role of the Why-answer. However, this “plain” explanation by storytelling is not a historical extrapolation. To achieve this status, the story must activate the Why-switch also, connecting the primary story to another story in the extrapolative act of looking for. History is not only to narrate connecting facts in a chain of events, it is a story about a story, and it is a story

⁶³ Danto; p. 201.

with a key message. With the activation of the meta-Who-switch, plain history becomes a *cosmogony*. It happens when the Who-switch assumes an ontognomic projection. In that case, the Who-switch is substituted by a meta-Who-switch as in Hymns and Epitaphs, which are ordines that alternate humans with meta-existential experiences. For example, in Presentation 22 the presentation about the members of a family activates Who-switches together with meta-Who-switches producing a cosmogonic presentation, a synthesis between their lives and their “fate”.



Presentation 22: Hjortberg's Painting

About this painting, Gunnar Broberg wrote:

Around 1770 an itinerant painter came to visit a vicar in western Sweden. The painter was German and was called Jonas Dürch and the priest was Gustaf Fredrik Hjortberg, the vicar of Släp a place near Gothenburg. The meeting led to a painting which is known as the Hjortberg's Painting, characterized by being full of details of its time. Hjortberg who followed the East India Company to China in three journeys, had a medical practice for his congregation – but patients came also from distant places, in order to be cured by the time's panacea, hydroelectric therapy. Hjortberg was of course also

active as a theologian. The painting is full of the time's mixture of theology and mundane (technogomic) propaganda. What first strikes the spectator is the large typical Lutheran family — but where mortality rates are presented through the fact that almost half of the children turns their face away. They are dead. The image is structurally divided in a male and female side but also as well as between life and death, between the sacred and the profane. The painting belongs to the epitaph-genre but because of the relaxed postures of the vicar and his wife, perhaps we can talk about a secular epitaph. In the middle, there is the crucifix to which Hjortberg points at. Below there is his own monogram and in the front of the painting, the small lemur nosing on the globe at Madagascar from where it come.⁶⁴

Hymns and Epitaphs are hybrids between the strict historical presentation and the Natural historic presentation; they are cosmogomic ordines about the “aliveness” of existence.

The extrapolative switches

As we said before, the historical presentation is built on extrapolations, which is a story about a story. That happens activating the Why-switch. These extrapolations are built on the extrapolative acts of finding and searching. We assume theoretically that these two acts can be combined in a chain of conjectures or can be performed separately. In the first case, we will describe the extrapolative act as “total” and in the second case as “partial”. That means that combining the partial extrapolations we get the total extrapolation. Total extrapolations consist

⁶⁴ Broberg, Gunnar. (Unpublished text.)

on moving away from the present time constructing presentations about the future and about the past to come back to a more sensible present. That is why the total extrapolation is valid only for one generation; each new generation will need to actualize the historical account in function of its own present. In a total extrapolation, our knowledge move from being a subject to being an object and vice versa. In our example of Las Casas' study about Columbus' travel to America, we see that Las Casas was *finding* an unknown person (that person that could have been in the New World before Columbus). Finding that person Las Casas could find support to the hypothesis that "nearly all was already discovered" and that the "only missing part was the space between East Indies and the islands of Cape Verde". But he worked moving from known scenarios and unknown persons, to known persons in hypothetical scenarios developing searching extrapolations too. The same can be said about Simon Wiesenthal's historical work. The combinations of these two movements give us a series of possible extrapolative conjectures that are relevant for the understanding of the historical presentation and lead to action. A total extrapolation changes praxis because makes the connection between the past and the future intelligible. This emerging new praxis must be universal; it must be the consequence of the general insight of humankind. Total extrapolations open for action; they lead always to praxical consequences.

Besides the total extrapolation that enchains finding with searching in Why-answers, there is another type of extrapolation which we could call labyrinthic in which searching cannot be distinguished from finding; this is the archaic extrapolative conjecture based on signatures in which the subjective and the objective are consubstantiated. This kind of extrapolative discourse makes possible any interpretation.

Further, we have also the two partial extrapolations, which also are “stories about stories” but they are based alternatively on searching or on finding and never combine these extrapolations. Therefore they may be considered quasi-historical presentations. Either the searching extrapolation takes over and obliterates the finding extrapolation or conversely, the finding extrapolation takes over obliterating the possibility of searching. The first condemns the subject to radical speculation making the historical discourse almost identic to the making of hypothesis. In that case, history becomes a “philosophy of history”. The second condemns the subject to a radical platitude, making the historical discourse identic to a database or in the best case almost engaged in a sociology of history. Let us schematize the four fundamental extrapolative presentations (Presentation 23):

Extrapolative modality	Our symbol	Examples	Explanation
labyrinthic (pre-modern) extrapolation			
[Extrapolation by resemblance: Find = Search; the two extrapolative acts are undistinguished].	! = ?	These texts are mythological, religious, magic or simply fantastic (literary).	“Looking for” in general: exploring, investigating, searching and finding, indistinctly. Makes sense in every circumstance independently of any pragmatic criteria.
Partial (modern) extrapolations (quasi-historical)			
[Speculative extrapolation; Find /Search; the searching extrapolative act takes over].	?!	Raymond Lull’s volvelles. Skinner’s radical contextualism. Agnes Heller’s categories. Lovejoy’s unit-ideas.	Looking for the future in the present. Speculative, non-operative texts. It is impossible to decide how to support action in these presentations; they have not pragmatic consequences.

[Positive extrapolation; Find/Search; the finding extrapolative act takes over	!?	Mnemognomies, lists, tables, matrixes, encyclopedias, dictionaries, databases, paradigms, classes, sets, structures, etc.	Looking for the past in the present. Positive presentations that can support action, but only in the present having no projection into the future. It cannot be used to anticipate future events.
Total (contemporary) extrapolations			
[Constructive extrapolation; Find +Search; the two extrapolative acts cooperate to succeed].	! + ?	The Foucaultian Panopticon with the complement of the Deleuzian “diagram”. Marxism’s “class-struggle” model.	Looking for the future and the past in the present. Understand the historical presentation as a generative model of action.
Presentation 23: Summarizing extrapolation modalities.			

Our classification is not based on an evaluation of the historical “significance” of these cases but on a description of their extrapolative modality. Neither is our classification a defense of some epistemology of history; for example, we consider a “pessimist” theory of history the consequence of a partial speculative extrapolation independently of its reliability. We will not be engaged in a chronology of the rise of these extrapolative modalities either; someone can be tempted to believe that the archaic and the partial extrapolative variants belong to our past. However, this conclusion cannot be supported by evidence. The only possible conclusion is that the relative importance of each variant has changed during time and that the total extrapolative modality dominates the mind of politicians in our time.

Chapter 4: The history of memory

Labyrinthic extrapolation

In the labyrinthic extrapolation, finding and searching are indiscernible; it covers the whole field open to “looking for”. That means that the historical switches are jumbled creating a *multistable* sense. That is the case of the myth, which always refers to events alleged to have taken place long ago. The labyrinthic extrapolation gives the myth an operational value that is *timeless*; it explains the present and the past as well as the future. In *The Order of Things*⁶⁵ Michel Foucault showed how the thought of the Renaissance extrapolated the order of a presentation to produce sense in a labyrinthic manner:

In phytognomic resemblance, the medicinal powers of plants were taken to be directly related to the way they looked. [...] Thus a plant, like the walnut, was good for the cure of a whole range of ailments in the head (because the similarity between the kernel itself and the brain), and plants with hairy roots served to alleviate baldness and other conditions affecting one body's hair.⁶⁶

Thinking in this manner is possible thanks to language; language pro-

⁶⁵ *The Order of Things. An Archaeology of the Human Sciences*. Tavistock Publications. Great Britain, 1970.

⁶⁶ Freedberg, David. *The Eye of the Lynx. Galileo, his friends, and the beginnings of Modern Natural History*. The University of Chicago Press; 2002; p. 72.

jects memory into virtual realities that can be manipulated freely. Signatures are extrapolations that arrange in one line the scales of the human body and the lifeworld in general. What is important here is that in this case, the extrapolation forced the ordognomies into *any possible docking*. Either the projective-world is forced to adapt to the dignity of the introjective-world, or the opposite, the introjective-world is forced to adapt to the dignity of the projective-world. Labyrinthic extrapolations are very close to the fantastic world of art and literature, and can be distinguished from these only by the principle of testimony. *Gulliver's Travels* by Jonathan Swift could be a god example of a fantastic non-historical presentation. Another characteristic of the labyrinthic extrapolations is that the plain story of chronology dominates the discourse; Bietenholz wrote about Herodotus:

[...] inconsistencies were passed on without comment, and rarely did he try to establish a chronological relationship between events belonging to the realm of myth. Although he may well have observed a general principle of structure, the first part of his work has the appearance of a diffuse mass of tales and traditions. His own ability to date events realistically reached back three generations, no more, and he could not expect his readers to do better.⁶⁷

The gradual understanding of the differences between finding and searching displaced gradually the labyrinthic of the myth opening for the first manifestations of chronology.

⁶⁷ Bietenholz, Peter G. *Historia and fabula: myths and legends in historical thought from antiquity to the modern age*. E.J. Brill, Leiden, 1994; p. 25.

The speculative (partial) extrapolation

This partial extrapolative modality obliterates the projective-world reducing it to the introjective-world. We will describe this extrapolation as “speculative”. The speculative extrapolation is based on considerations about the past and/or the future *that cannot be connected to the present*. The work of Lull for instance is a good example of speculative extrapolation. In the work of Raymond Lull, we find that the author was trying to “decipher the alphabet of the world”; “read the signs imprinted by the divine Body in the book of nature”. Some aspirations were to “discover the correspondence between the original forms of the universe and the structures of human thought”; others to “construct a perfect language capable of eliminating all equivocations and putting us in direct contact with things and essences rather than signs”. Raymond Lull sought “the constitution of total encyclopedias and ordered classifications which would be the true mirrors of cosmic harmony”.⁶⁸

[...] these were the objectives of the numerous defenders, apologists and expositors of Lullism and artificial memory between the fourteenth and seventeenth centuries. They formulated systematic rules for improving the memory, compiled grandiose encyclopedias and complicated “theatres of the world”, sought to reduce the complexities of human thought to a primordial “alphabet” of simple notions, and harbored pansophic aspirations and hopes for a universal reformation and pacification of human-kind.⁶⁹

In the work of Raymond Lull then, the speculative searching-aspects of

⁶⁸ Paolo Rossi. *Logic and the Art of Memory. The Question of a Universal Language*. The Athlone Press, 2000; p. xv.

⁶⁹ Paolo Rossi. Preface, page xv.

the act of looking for were prior to any other consideration. The imaginary of the art of memory of Antiquity became subordinated to the cycles of a mechanism of pure searching. The structure that during Antiquity was spatial or architectonic, consisting in locignomies in which the switches of memory were imbedded, was now subordinated to a procedure favoring speculation:

In the texts of Lull, the combinatorial art is presented as a “logic” which is also at the same time “metaphysics”, but is different from both of them, “in the way of considering its object” and “as regards its principles”. While metaphysics considers entities external to the soul “from the point of view of their being” and logic considers them according to the being, which they have in the soul, the art – supreme among all the sciences– considers entities in both ways at once.⁷⁰

The Lullian art was deeply connected to the objects of the world working to reproduce their true structure. “Unlike formal logic, it deals with things, and not with words alone. It is concerned with the structure of the world, and not just with the structure of discourses.”⁷¹ Paolo Rossi noted this:

According to Tomas Le Myésier, a disciple of Raymond Lull, the goal of the method of Raymond Lull was that the defense of the Christian faith against the Averroists showing the truth of Christianity reflected in cosmology. The Cusanian doctrine of the ascent and descent of the intellect followed the same goal. According to Nicholas of Cusa: “it is possible to elevate oneself to an under-

⁷⁰ Paolo Rossi. p. 32.

⁷¹ Paolo Rossi. *Ibid.*

standing of God ascending from the likeness of the divine perfections impressed in his creatures, and descending from the understanding of divine being and its attributes to the understanding of reality which is the mirror of that perfection.”⁷²

The Art of Raymond Lull was heuristic; at one hand an analogy of the Divine cosmology, and at the other hand, an extrapolation aimed to generate it. As a memory device was directed to recall the past, as an artefact it was directed to anticipate the future.

In the *Liber de ascensu et descensu intellectus*, composed by Lull in Montpellier in 1304, Lull deals at length with the idea of the reconstruction (in the human intellect) of the divine archetype which presided over the material creation, by searching for analogies and signs in the physical world (an idea later taken up and developed by Cusanus). Through the description of the complicated ladder of being, from stones to plants, through animals to man, through the angels to God, this theme came to be identified with the other well-known theme of the minute reconstruction or ‘encyclopedia’ of the cosmic hierarchies.⁷³

During the sixteenth century, the inherited mnemotechnics of Cicero, Quintilian, the *Rhetorica ad C. Herennium*, the mnemotechnics of Thomas Aquinas and Pietro da Ravenna merged with the *logica combinatoria* of Raymond Lull. Then, this new compound was developed in the works of Nicolaus Cusanus, Pico della Mirandola, Henricus Cornelius Agrippa and Giordano Bruno, preparing for the rise of the technonomies of the scientific revolution.

⁷² Paolo Rossi. *Op.cit.* p. 35.

⁷³ Paolo Rossi. *Op.cit.* p. 35

A contemporary example of speculative extrapolation could be found in Agnes Heller's theory of history, which is almost a philosophical interpretation of the historical discourse. In her book, *A Theory of History*⁷⁴, Heller presented six historical periods that coincide with six phases of consciousness. However, it is impossible to understand these categories pragmatically. The first is "unreflected generality: the genesis" and includes the archaic thought with mythical thinking as its typical manifestation. Historical consciousness is occupied by stories about the *genesis*. Time has no boundaries backwards but there is not a word for the "infinite". According to Heller this phase can be resumed with the sentence: "Once upon a time." The second phase is that of "the consciousness of generality reflected in particularity; the consciousness of history." This is the time of the classical Greece: "Cronus devoured his own children. As Hegel remarked, time as history (that is to say, politics, state, and civilization) has been born with Zeus." In this phase history is the consciousness of change; history, include now not only the genesis but also that what happened yesterday; *the general expresses through the particular*. The Gods manifests themselves through the own people, the state, and the individuals. The myth is still important but now in collaboration with chronological stories that can be included in everyday argumentations creating a new kind of reason that can modify the meaning of the myths. The third is the phase of "the consciousness of unreflected universality", when the particular became universal. The own people is understood now as "humanity". God talk to his people indirectly, through all the individuals belonging to the same culture or religion. Christianity is an example of an under-

⁷⁴ Agnes Heller. *A Theory of History*. Routledge and Kegan Paul; 1982; p. 8.

standing of history that stretches during the Middle Age. The genesis and the myth are still present; the chronological accumulation of happenings is still an important practice but interpretation and the critical study of historical texts increases in importance. The fourth is the phase of “the consciousness of particularity reflected in generality” and begins with the Renaissance and stretches until the Enlightenment. During this phase, the insight of a “new beginning” is the dominating form of historic consciousness. The cultural boundaries disappear and “history” is common to the humans independently of culture and religion. This is the time of analogies and comparative studies. These studies discovered identities, differences, and regularities. Secularization began as an important consequence of the implementation of the historical consciousness in this time. Heller’s fifth phase begins with the French revolution and stretches during the whole of the 19th Century. This is the phase of “the consciousness of world-history or the consciousness of reflected universality. There are no longer histories in the plural, there is only ‘History’ (with a capital H), universal history, world history.”⁷⁵ The secularized history became now also a philosophy of history. The sixth and last phase is a critical phase beginning with the First World War and including the Second World War as well. This is the phase of “the confusion of historical consciousness; the consciousness of reflected generality as a task.” According to Heller the historical consciousness follows a dialectical path in which universality and particularity combines in chains of domination and subordination to conform the different phases of development. The partiality of Heller’s extrapolative thought reveals specially in the difficulty to apply his

⁷⁵ Agnes Heller; p. 21.

conclusion to the future of the present history.

Typical cases of speculative extrapolation can also be found in the work of the great pessimists of any time. A characteristic of historical pessimism is that it assumes its own time's civilization as *the highest possible point of development*. Because of that, they focus on the present as the last post before an unthinkable future. Into this group, we can find the works of Nietzsche, Ellul, Heidegger, Spengler, Mumford, Adorno, Marcuse, and Borgmann. For Jacques Ellul's (1912 – 1994) for example, the future of civilization is that of alienation through artificiality. Let us see how he presents the historical development:

We have completed our examination of the monolithic technical world that is coming to be. It is vanity to pretend it can be checked or guided. Indeed, the human race is beginning confusedly to understand at last that it is living in a new and unfamiliar universe. The new order was meant to be a buffer between man and nature. Unfortunately, it has evolved autonomously in such a way that man has lost all contact with his natural framework and has to do only with the organized technical intermediary, which sustains relations both with the world of life, and with the world of brute matter. Enclosed within his artificial creation, man finds that there is “no exit”; that he cannot pierce the shell of technology to find again the ancient milieu to which he was adapted for hundreds of thousands of years.⁷⁶

Lewis Mumford's (1895 – 1990) is another good example of historical pessimism; his critique of technological development is a critique of capitalism, and a call for a new social order that relates to technics in a

⁷⁶ Jacques Ellul; *The Technological Society*. Vintage Books, New York, 1964; p. 428.

“human” way. Mumford divides the development of technology into three overlapping phases: eotechnic (AD 1000 to 1800, based on wood and water), paleotechnic (1700 to 1900, based on coal and iron) and neotechnic (from 1900 to Mumford’s present, 1930 based on electricity). Mumford did not advocate for a rejection of all technology but to a selection between “democratic” technologies, which are those that are “consistent with human nature”, and “authoritarian” technologies, technologies that are in conflict, against the values human. His view is closely related to humanism and to classical anarchism. Mumford’s pessimistic view of the technological development is formulated in his book *Technics and Civilization* from 1934⁷⁷. In this book, he introduced his notion of the “mega-machine” which he found already in the construction of the pyramids in ancient Egypt. This mega-machine implies the development of a complex organizational bureaucracy. World War II and the development of the atomic bomb would be contemporary examples of this mega-machine. Mumford believed that this mega-machine holds great dangers and its destructive power is beyond the control of humans.

One more example of speculative extrapolation can be found in Arthur Lovejoy’s *The Great Chain of Being. A study of the History of Ideas of an Idea*.⁷⁸ In this variant of speculative extrapolation, the presentation precludes development, defending varieties of perpetual repetitions, history “halt” and “return” to the same original starting point. For instance, for Lovejoy there are few new problems in the world:

⁷⁷ Mumford, Lewis, *Technics and civilization*. New York : Harcourt, Brace and company, 1934.

⁷⁸ Arthur Lovejoy. *The Great Chain of Being. A study of the History of Ideas of an Idea*. Harvard University Press. 1961.

Even if the array of material is simplified somewhat by the aid of conventional and largely misleading- classifications of philosophers by schools or *-isms*, it still appears extremely various and complicated; each age seems to evolve new species of reasoning and conclusions, even though upon the same old problems. But the truth is that the number of essentially distinct philosophical ideas or dialectical motives is - as the number of really distinct jokes is said to be - decidedly limited, though, no doubt, the primary ideas are considerably more numerous than the primary jokes. The seeming novelty of many a system is due solely to the novelty of the application or arrangement of the old elements, which enter into it. When this is realized, the history as a whole should look a much more manageable thing. I do not, of course, mean to maintain that essentially novel conceptions, new problems and new modes of reasoning about them, do not from time to time emerge in the history of thought. But such increments of absolute novelty seem to me a good deal rarer than is sometimes supposed.⁷⁹

According to Arthur Lovejoy, the history of Western thought can be condensed into three main concepts. These three concepts describe with accuracy the Natural order. The first is the concept of *plenitude*, introduced by Plato in the *Timaeus*, which holds that the divine demiurge created every possible kind of temporal being in the world, or, put differently, that the world contains as many imperfect beings as it possibly could.

I shall call it the principle of plenitude, but shall use the term to cover wider range of inferences from premises identical with Plato's than he himself draws; i.e. not only the thesis that the universe is a

⁷⁹ Lovejoy, A. p. 4.

plenum formarum in which the range of conceivable diversity of kinds of living things is exhaustively exemplified, but any other deductions from the assumptions that no genuine potentiality of being can remain unfulfilled, that the extent and abundance of the creation must be as great as the possibility of existence and commensurate with the productive capacity of a 'perfect' and inexhaustible Source, and that the world is the better, the more things it contains.⁸⁰

The second foundational concept is that of the *continuity* between imperfect beings. This concept is a logical consequence of Plato's conception of the fullness of the world. According to this concept if there is a possibility of being between two forms of being, then that possibility has to be realized.

On the other hand, it is in Aristotle that we find emerging another conception –that of continuity – which destined to fuse with Platonic doctrine of the necessary 'fullness' of the world, and regarded to be logically implied by it.⁸¹

The third foundational concept is that of the *gradation* among beings - inspired by Aristotle - which is understood as the existence of a *hierarchical order* in the continuity of beings.

In spite of Aristotle's recognition of the multiplicity of possible systems of natural classification, it was he who chiefly suggested to naturalists and philosophers of later times the idea of arranging (at least) all animals in a single graded *scala naturae* according to the

⁸⁰ Arthur Lovejoy; *The Great Chain of Being. A study of the History of Ideas of an Idea*. Harvard University Press. 1961, p. 52.

⁸¹ Lovejoy, p. 55.

degree of perfection.⁸²

Within the Western tradition, then, the natural order of the world has explicitly been seen as fulfilled, and everything that could possibly have been created has been created within a perfect hierarchic order. However, how can this insight be pragmatically comprehended?

The positive (partial) extrapolation

This partial extrapolative modality obliterates the introjective-lifeworld reducing it to the projective-lifeworld. We will describe this extrapolation as “positive”. The positive extrapolation gives us a description of the past that generates a useful praxis in the present but has no projection into the future. It permits the formalization of history into “tools” as encyclopaedias, dictionaries and tables and opens for a sociology of history. An early expression of a positive partial extrapolation can be found in Antiquity with the *mnemogony*. A mnemogony is an absolute findable order that can only exist if each item in the order is known assuming the existence of a *limited* lifeworld. They were the dominant finding technognomies until the early moments of the scientific revolution when the unity between finiteness and knowledge was definitively broken. However, the development of technognomies that could substitute memory began already with the written word. Anyone who tries to understand the archaic man’s relationship to others and to their social environment must try to imagine a life totally of partially determined by the impossibility of memorizing through the written

⁸² Lovejoy, p. 58.

word; regarding especially to the difficulties of memorize experiences between different generations. Communication is under such conditions extremely dependent on the individual and social memory. It is then not surprising that several of the technognomic resources that had been developed during history had to do with the development of tools that could enhance individual and social memory. Similar solutions exist in various forms in all cultures and have always accompanied the development of the written word. The memory-enhancing technognomy developed in Peru by the Incas, the *Quipu* (which in Quechua means “knot”) was used primarily as a calculating tool, but made also possible the recording of astronomical and historical data.⁸³ Even in a cultural environment in which the written word existed but in which the art of printing had not yet developed, equivalent memory-enhancing technognomies can be found.

Some primitive ideas of ordognomy are historically related to the mnemonic arts of antiquity in which each thing shall be memorized in association to an eidetic *loci*. Waldenfels noted that for Cicero the word ordognomy “means the juxtaposition of things in the places suitable and appropriate to them”; while for St. Augustine, a mnemognomy “is the distribution of like and unlike things assigning to each its own place.”⁸⁴ According to Aristotle in *De memoria et reminiscencia*, “recollection” is different from “memory”. Memory is almost the same as perception while recollection is a form of thought that demands the uses of images and analogies. We notice that for Aristotle, memory was mediated by the recollection of visual data. Paolo Rossi

⁸³Conklin, William. “The information system of the middle horizon Quipu.” *Annals of the New York Academy of Sciences*, 1982.

⁸⁴Bernhard Waldenfels. *Order in the Twilight*. Ohio University Press, 1996; p.1.

listed the three of the Aristotelian theories that were relevant for mnemognomics:

- 1) The idea that the presence of the image or phantasm is necessary for the functioning of memory; this necessity of the image (which is seen as a weakened form of sensation) is attributed to the fact that there are close links between memory and both the imagination and sensation.
- 2) The idea that recollection or reflexive memory, or the actualization of stored memories is facilitated by order and regularity, as, for example, in the case of mathematics, where it is difficult to remember things, which are presented in a disordered and confused way.
- 3) The formulation of a law of association according to which images and ideas are associated on the basis of similarity, opposition or contiguity.⁸⁵

According to Rossi, the work of Petrus Ramus, refused the old art of memory—the intellectual aspects of the art—as a part of the rhetoric of Scholasticism and substituted it by a dialectical ordognoy of embodiment based on the Lullian Art:

Though Ramism is aware of the old art of memory and retains some of its order, whilst discarding places and images, it is in many respects closer to the other type of “artificial memory” which was not in descent from the rhetoric tradition and which also made no use (in its genuine form) of images. I am speaking, of course, of Lullism. Lullism, like Ramism, included logic in memory for the Lullian Art, as memory, memorized the logical processes of intellect. And another characteristic feature of Ramism, its

⁸⁵ Paolo Rossi. *Logic and the Art of Memory. The Question of a Universal Language*. The Athlone Press 2000; p 7-8.

arrangement or classification of matter in an order descending from “generals” to “specials” is a notion implicit in Lullism as it ascends and descends on the ladder of being from specials to general and from generals to specials.’⁸⁶

It is a significant fact that the art of memory is discussed in the seventeenth century not only, as we should expect, by a writer like Robert Fludd, but also by thinkers as Francis Bacon, Descartes and Leibniz.⁸⁷ For the modern development of science, the mnemogonic heritage was clearly insufficient. The reason was that these tools could not manage finding efficiently. We can follow the relationship that Bacon had to the *ars memorativa* in the *Novum organum*, where he expands the classical insights of the art with his own. Bacon’s account rappsports the importance of the finite character of this technognomy:

The object of our inquiry is memory, or that which excites and aids the memory. Things which aid the memory include: order or distribution, and topics or “places” in artificial memory (which may either be places in the proper sense of the word, such as a door, a corner, a window and so on) or familiar and known persons, or anything you like (provided they be placed in a certain order), such as animals, vegetables etc. Words, letters, characters, and historical persons can also be used for this purpose, although some of these are more appropriate and convenient than others. Such artificial places are wonderful aids to the memory, and raise it far above its natural powers. [...] From these three instances, viz., order, artificial places, and verse, a single memory-aid can be constructed. And this kind of memory art may properly be called the interrup-

⁸⁶ Frances A. Yates. Op.cit; p.234.

⁸⁷ Frances A. Yates. *The Art of Memory*. 2008; p.355.

tion of infinity. For when we try to recollect or remember something, if we have no pre-notion or perception of what we are seeking, we seek and toil and wander aimlessly, as if in infinite space. Whereas, if we have a particular pre-notion, infinity is at once interrupted, and the memory has a more restricted space to range over.⁸⁸

According to Rossi, the project of Bacon included:

The invention of arguments and construction of coherent and persuasive discourses required, Bacon suggested, 1) the setting-out of an extensive collection of arguments, and 2) the establishment of rules for the limitation of the field of investigation and for determining the parameters of a specific and limited field of discourse (topica). The role of the art of memory was to elaborate a technique (using pre-notions, emblems, order, loci, verses, writing, etc.) by which one could achieve these two aims.⁸⁹

The positive quasi-historical presentation is that in which the finding extrapolation takes over the discourse. One typical example is the formalization of the historical discourse as an *encyclopedia*. An encyclopedia is a voluminous ordogonomy, which does not pretend to be original; it tries to give an impartial, objective and complete panorama of the whole of knowledge at some determined moment and because of that, it can be of huge proportions. While archaic encyclopedism was characterized by the naive pretentiousness to be exhaustive, the modern understanding of it is that of a *compendium* or *summa*. Foucault described the pre-modern task of the historians as follow:

⁸⁸ Rossi, Paolo. *Logic and the Art of Memory*; p.109-110.

⁸⁹ Rossi, Paolo. Op.cit. p.119.

Until the mid-seventeenth century, the historian's task was to establish the great compilation of documents and signs—of everything, throughout the world, that might form a mark, as it were. It was the historian's responsibility to restore to language all the words that had been buried. His existence was defined not so much by what he saw as by what he retold, by a secondary speech, which pronounced afresh so many words that had been muffled.⁹⁰

The encyclopedism after the discovery of America was aware of the incompleteness of any compilation of knowledge. Rather to aspire to achieve completeness, the Encyclopedists of the Modern age tries to establish some criteria of demarcation between the important and the unimportant, the relevant and the irrelevant.

Another example of positive extrapolation is the formalization of the historical discourse in a *table*.

From the elements that the System juxtaposes in great detail by means of description, it selects a particular few. These define the privileged and, in fact, exclusive structures in relation to which identities or differences as a whole are to be examined. Any difference not related to one of these elements will be considered irrelevant. If, like Linnaeus, one selects as the characteristic elements “all the different parts related to fructification, then a difference of leaf or stem or root or petiole must be systematically ignored”.⁹¹

The selection of some few variables is characteristic for the eidetic gap between ordines from pre-Modern and Modern times. Modern

⁹⁰ Foucault, Michel. *The Order of Things*, p. 131.

⁹¹ Michel Foucault. p. 140.

ordines as that of the Linnaean *Systema Naturae* rose from a task that embraced a *finite number of elements*. This can be exemplified contrasting Aristotle's sense of order as infinitum. About this Jonnie Eriksson writes:

One issue in the research [on Aristotle's natural history] is what characterizes Aristotle's manner of classification (logically and practically). The question is which method we might ascribe to his system for nature and how similar it is to the modern, Linnaean one; it is asked whether the terms he uses can be translated into modern ones (is *genos* the same as genus, i.e. kind, and is *eidōs* the same as species?), if they can be regarded as equivalent (is the distinction between blooded animals and bloodless animals transferable to that between vertebrates and invertebrates?), or if there is a gap in the history of classification. The state of research into this issue has changed during the last few decades. For a long time Aristotle had been either hailed as a precursor to modern biological taxonomy or berated for failing in his presumed effort to realize such a system, but the 1970s and 80s saw several studies which criticized this conventional assumption that a taxonomy was Aristotle's goal and which argued against the view that his Greek terms would have a modern, scientific validity. What Aristotle was really after, these writers now held, was something else: not to establish a taxonomy but to investigate the grounds for definition; not to perform a systematic division of kinds and species but to explain the reason for animals having body-parts that appear different.⁹²

Francis Bacon defended strongly the importance of the table—

⁹² Eriksson, Jonnie, "Aristoteles anomalier", *Glänta* 1.11 (2011), pp. 49–50; my trans.

coordinaciones instantiamm—for science introducing in that manner the scientific praxis of a descriptive language that puts in focus the 1-1 referential typognomic principle of modern scientific induction.

The image shows a complex tabular classification of the animal kingdom. At the top, it is titled 'CAROLI LINNÆI REGNUM ANIMALE'. Below this, there are six main columns representing different classes of animals: I. QUADRUPEDIA, II. AVES, III. AMPHIBIA, IV. PISCES, V. INSECTA, and VI. VERMES. Each column contains a list of species and their characteristics. Below the main classification, there is a large section for 'I. QUADRUPEDIA' with a detailed description: 'Corpus hirsutum, Pedes quatuor, Femina viviparæ, lactiferæ'. This section is further divided into sub-sections for 'Homo', 'Simia', and 'Brachyus', each with its own list of species and characteristics. The table is highly organized and detailed, reflecting Linnaeus's systematic approach to taxonomy.

Presentation 24: Table of the Animal Kingdom (Regnum Animale) from Carolus Linnaeus's first edition (1735) of *Systema Naturae*.

According to Paolo Rossi, Bacon's inductive process has its origins in the method of the tabulae:

The first sustained attempt by Bacon to lay down the basis for the invention of natural loci and develop a method of tabulation was in 1607-8 and it was no coincidence that, at this point in his work, Bacon used the words *topica* and *tabulae* (or *chartae*) as synonyms. In the *Cogitata et visa* of 1607 he explained the function of the tables in the following way: "After a long and difficult meditation, the first thing which one must do is set out the tables of invention, that is, the forms for a legitimate investigation of clearly defined arguments, which is to say a particular matter ordered appropriate-

ly for the work of the intellect. And this will be virtually an exemplar or visible description of the work to be realized.”⁹³

For Bacon, the universe is no more a labyrinth; when the universe is transcribed into the technonymy of the table, it becomes finite and findable. A contemporary positive extrapolation is for example the Kuhnian concept of “paradigm”. The Latin word *paradigma* from the Greek *paradeiknynai* (“exhibit”, “represent”, “pattern” and “example”) is obviously connected to the historical monotony or “tradition”. The word “tradition” from Latin *traditionem* (“delivery, surrender, a handing down,”) means in its modern sense “things handed down” from generation to generation. To the meaning of “handing down” it is necessary to add the meaning of “inheritance” which is necessary associated to the meaning of “forgotten source or roots” of the inherited. Traditional actions are performed in a closed world and this is their common characteristic. In the same sense, a scientific paradigm implies the handing out the knowledge inherited from earlier generations of researchers. It implies the fact that science follows traditional views as every other segment of society. According to Thomas Kuhn, science develops through alternative periods of normality and revolution, moving between different “paradigms” understood as epistemological models. However, the study of historical cases cannot open for anticipations or to a pragmatic application in the present. The term, which refers to a fast “structure”, implies the rigidity of it. Writing about his book *The Structure of Scientific Revolutions* Kuhn noted the richness of the term “paradigm”:

For that excessive plasticity, no aspect of the book [*The Structure of*

⁹³ Rossi, Paolo. Op.cit. p. 121.

Scientific Revolutions] is so much responsible as its introduction of the term “paradigm,” a word that figures more often than any other, excepting the grammatical particles in its pages. [...] Critics, whether sympathetic or not, have been unanimous in underscoring the large number of different senses in which the term is used. One commentator, who thought the matter worth systematic scrutiny, prepared a partial subject index and found at least twenty-two different usages, ranging from “a concrete scientific achievement” to a “characteristic set of beliefs and preconceptions”, the latter including instrumental, theoretical, and metaphysical commitments together.⁹⁴

Kuhn decides then to substitute the term “paradigm” with the phrase “disciplinary matrix” reinforcing the rigidity of his historical view:

[...] disciplinary” because it is the common possession of the practitioners of a professional discipline and “matrix” because it is composed of ordered elements of various sorts, each requiring further specification.”⁹⁵

The three most important of these “elements” of a disciplinary matrix were 1) symbolic generalizations (the use of the same language); 2) models that works heuristically (the use of the same analogies); 3) the objects of metaphysical commitment (referring to the same philosophical perspective). These three levels of common reference must be represented as residues constituting the historical ground of science.

As we can see, Kuhn’s historicism needs to be complemented by the *unsaid* within their lines which can be provided only by the comple-

⁹⁴ Kuhn, Thomas. *The Essential Tension. Selected Studies in Scientific Tradition and Change*. University of Chicago Press; 1977; p.293-294.

⁹⁵ Kuhn, Thomas. *The Essential Tension*; p. 297.

ment of searching extrapolations. Both the idea of a “paradigm” and the idea of “episteme” of Foucault imply the monotony of “small” changes and the anticipation of “important” changes that cannot be pragmatically introjected without the implementation of the *deconstructive* methodognomies of total extrapolations.

Another contemporary example of the positive partial extrapolation could be Quentin Skinner’s radical contextualism. Criticizing Lovejoy’s extrapolative methodology Quentin Skinner wrote:

The most persistent mythology has been created by historians working with the expectation that each classic writer (in the history, say, of moral or political theory) will be found to enunciate some doctrine on each of the topics regarded as constitutive of the subject. It is a dangerously short step from being under the influence (however unconsciously) of such a paradigm to ‘finding’ a given author’s doctrines on all the mandatory themes. The result is a type of discussion that might be labelled the mythology of doctrines. The mythology takes several forms. First there is the danger of converting some scattered or incidental remarks by a classic theorist into their ‘doctrine’ on one of the expected themes. This in turn has the effect of generating two particular kinds of historical absurdity: One is more characteristic of intellectual biographies and synoptic histories of thought, in which the focus is on the individual thinkers (or the procession of them). The other is more characteristic of ‘histories of ideas’ in which the focus is on the development of some ‘unit idea’ itself.⁹⁶

We notice that Skinner contextualism is arguing for partial instead of

⁹⁶ Skinner, Quentin. *Visions of politics. Vol. 1, Regarding method.* Cambridge: Cambridge University Press: 2002; p. 59-60.

total extrapolations. Skinner criticizes the speculative extrapolation of Lovejoy from an own positive extrapolative modality:

The mythology of doctrines can similarly be illustrated from ‘histories of ideas’ in the strict sense. Here the aim (in the words of Arthur Lovejoy, pioneer of this approach) is to trace the morphology of some given doctrine ‘through all the provinces of history in which it appears’. The characteristic point of departure is to set out an ideal type of the given doctrine -whether it is that of equality, progress, reason of state, the social contract, the great chain of being, the separation of powers, and so on. The danger with this approach is that the doctrine to be investigated so readily becomes hypostasized into an entity. As the historian duly sets out in quest of the idea thus characterized, it becomes all too easy to speak as if the developed form of the doctrine has always in some sense been immanent in history, even if various thinkers failed to ‘hit upon’ it, so even if it ‘dropped from sight’ at various times, even if an entire era failed to ‘rise to a consciousness’ of it.⁹⁷

In the work of Skinner, there are traces of a “postmodern” understanding of history; his work is a platform of critical insights against the *grand narratives* of modernity. However, his radical contextualism makes his historical studies positive stamps of the past without any possible projection into the future.

Another example of positive extrapolative history is Norbert Elias’ work as it is presented in *The civilizing Process*⁹⁸ and in his essay on the historical understanding of “time”⁹⁹. Elias’ understanding of history is

⁹⁷ Skinner, Quentin. Op.cit; p. 62.

⁹⁸ Elias, Norbert, *Time: an essay*, Blackwell, Oxford, 1993.

⁹⁹ Elias, Norbert, Dunning, Eric, Goudsblom, Johan & Mennell, Stephen, *The civilizing process*:

clearly sociological and his efforts are directed to develop a concept of history based only in finding-extrapolations. His work is based on the dichotomy between “civilization” and “culture” giving us a description of how the feelings of individuals change together with the objective changes of their societies. In this respect, Elias opens for a theory of the evolution of taste that he never accomplished. Elias’ work describes the sociological character of the most private feelings in connection to sociological macro-processes but his attempt gives us no tool to anticipate future changes. His work is indirectly connected to Freud’s understanding of history as it is presented in *Civilization and its discontents*.¹⁰⁰ Both, Freud and Elias, initiate a narrative that never comes to be a story within a story.

The total extrapolation

The total extrapolation characterizes for being constructive and deconstructive; this extrapolation produces presentations that mediate between the introjective-world and the projective-world. The total extrapolation “makes sense” in action, it connects to the present of the historian producing a senseful past and future. *The most frequent variant of total extrapolation is that of deconstructing a partial extrapolation.* The deconstruction of a partial extrapolation makes it fully historical because through this act it can be pragmatically introjected. However, what means here with “deconstructing”? Derrida understands the concept of “deconstruction” as a *philosopheme* and there is no simple

sociogenetic and psychogenetic investigations, Rev. ed., Blackwell, Oxford, 2000.

¹⁰⁰ Freud, Sigmund, *Civilization and its discontents*, Penguin, London, 2004

definition of the term:

[...] deconstruction is neither an analysis nor a critique [...] It is not an analysis in particular because the dismantling of a structure is not a regression toward a simple element, toward an indissoluble origin. These values, like that of analysis, are themselves *philosophemes* subject to deconstruction. No more is it a critique, in a general sense or in Kantian sense. The instance of *krinein* or of *krisis* (decision, choice, judgment, discernment) is itself, as is all the apparatus of transcendental critique, one of the essential “themes” or “objects” of deconstruction.¹⁰¹

It cannot be a *method* either:

Deconstruction is not a method and cannot be transformed into one. Especially if the technical and procedural significations of the word are stressed. It is true that in certain circles (university or cultural, especially in the United States) the technical and methodological “metaphor” that seems necessarily attached to the very word deconstruction has been able to seduce or lead astray. Hence the debate that has developed in these circles: Can deconstruction become a methodology for reading and for interpretation? Can it thus be allowed to be reappropriated and domesticated by academic institutions? It is not enough to say that deconstruction could not be reduced to some methodological instrumentality or to a set of rules and transposable procedures. Nor will it do to claim that each deconstructive “event” remains singular or, in any case, as close as possible to something like an idiom

¹⁰¹ Jacques Derrida. "Letter to a Japanese Friend. (Prof. Izutsu)." In: *Derrida and Difference*, ed. Wood & Bernasconi, Warwick: Parousia Press. 1985, p.1-5.

or a signature.¹⁰²

For us, “deconstruction” is the complementary act of “finding” and “searching” engaged in chains of extrapolations directed to make sense in the present and opens for an anticipation of the future. A good example of a total extrapolative narrative is the Marxian presentation of the historical development that is associated to the introduction of the fundamental Marxian key-concepts of “submission”, “exploitation”, “repression”, “struggle”, “liberation”, etc. The Marxian theory of history is the most developed example of extrapolative totality; an aspect that explains its exceptional importance in the political history of the 20th Century. Their concepts can be activated in any story, and to any period, acting as deconstructive switches that could be used to anticipate guide to action in the present and to anticipate the future. Let see the following example (Presentation 25) in which a plain story is converted into a “story about a story” through the activation of some specific switches:

The plain narrative text	The text after the application of the Marxian extrapolation
These serfs move separately to the towns, where they found an organized community, in which their labor was demanded.	These serfs, persecuted by their lords in the country, came separately into the towns, where they found an organized community, against which they were powerless and in which they had to subject themselves to the waged position assigned to them by the economical interest of the organized urban classes.
Presentation 25: The Marxian total-extrapolation connected to specific key-words applied to a plain text.	

¹⁰² J. Derrida, *Ibid.*

The Marxian total extrapolation is a deconstruction of a given historical material and is always about concrete persons and institutions. The Marxian extrapolation is therefore very different from the Freudian historical extrapolation as it is presented in *Civilization and its discontents*¹⁰³ and in *Moses and monotheism*.¹⁰⁴ For instance, the Marxian extrapolation is based on categories that change with time. Categories as “mode of production”, “ideology”, “social class”, “media of production”, etc. are specific to each period of history. The mind of a person from the 16th Century can never be identified the mind of a person from another period of history. On the contrary, for psychoanalysis the mind of man shows the same unconscious structure than any other man from any other period. Freud gave us a testimony of this standpoint in e.g. his study “A Seventeenth-Century Demonological Neurosis.”¹⁰⁵ (We will study closer Freud’s extrapolative modalities in the next chapter.)

Svante Lindqvist presents another variety of total extrapolative history in the book *Technology on Trial* from 1984.¹⁰⁶ In this work, Lindqvist performs a series of extrapolations comparing England and Sweden between the years 1726-1736. Lindqvist studies the lack of success of the attempt of introducing the technology of the Newcomen engine in the

¹⁰³ Freud, Sigmund, *Civilization and its discontents*, Rev. ed., 6. pr., Hogarth P. and the Inst. of psycho-analysis, London, 1979[1963]

¹⁰⁴ Freud, Sigmund, *Moses and monotheism.*, Vintage Books, New York, 1955-1939; p. 169-170.

¹⁰⁵ Freud, Sigmund. “A Seventeenth-Century Demonological Neurosis.” Standard Edition of the Complete Psychological Works of Sigmund Freud. 19; 1961.

¹⁰⁶ Lindqvist, Svante. *Technology on Trial. The Introduction of Steam Power Technology into Sweden 1715-1736. Uppsala Studies in History of Science I, Uppsala 1984; p. 14.*

Dannemora Mines in Sweden. From the study of this case, it is possible to understand the necessary conditions for a successful transference of technological knowledge even in the present and in any future. Lindqvist builds his extrapolations on a *list* of meta-switches that he constructs and deconstructs in different geographies and historical periods. This list is presented as follow:

What, then, were the reasons for the lack of success of this attempt at technology transfer? In the events described here, we can discern critical factors of a number of different kinds of historical switches: *technical, geographical, economic, social and cultural*.¹⁰⁷

In short, that which makes an extrapolation total is the power to apply it to understand the future hanging the present. This can be done directly or indirectly. Some historians open for totality but give us a partial extrapolation to start with. For example, in the following presentation Foucault formulates the *Panopticon-hypothesis*. The extrapolation in Foucault's presentation is a partial positive extrapolation based on the existence of a tangible thing (the Panopticon) which is used as a model of the structure of power of the whole society. Let see the following extract from his texts:

“The Panopticon is a discipline machine for dissociating the see/being seen dyad: [...]” (p. 201-202).

“The Panopticon, on the other hand, must be understood as a generalizable model of functioning; a way of defining power relations in terms of the everyday life of men. (p. 205).

“A whole disciplinary generalization - the Benthamite physics of power represents an acknowledgement of this - had operated throughout the classical age.” (p. 209-210).

Presentation 26: the Panopticon in Foucault's Discipline and Punish: The Birth of the

¹⁰⁷ Lindqvist, Svante; p. 291.

The Panopticon of Foucault could be transformed into a total-historical presentation if it is *deconstructed*, in the sense that Derrida uses the term (or in the sense of the Heideggerian concept of “destruction”). The deconstruction of the Panopticon could make total sense, if it could place the phenomena *under political control* making it *operative*. Gilles Deleuze understood the idea of Panopticon as an example of a more general concept of “diagram” or social structure of power:

What can we call such a new informal dimension? On one occasion Foucault gives it its most precise name: it is a ‘diagram’, that is to say a ‘functioning, abstracted from any obstacle [...] or friction [and which] must be detached from any specific use’. The *diagram* is no longer an auditory or visual archive but a map, a cartography that is coextensive with the whole social field. It is an abstract machine. It is defined by its informal functions and matter and in terms of form makes no distinction between content and expression, a discursive formation and a non-discursive formation. It is a machine that is almost blind and mute, even though it makes others see and speak. If there are many diagrammatic functions and even matters, it is because every diagram is a spatiotemporal multiplicity. But it is also because there are as many diagrams as there are social fields in history.¹⁰⁸

We see that both the Foucaultian “archive” and “diagram” are consequences of positive partial extrapolations without their submission to a deconstruction.

¹⁰⁸ Deleuze, Gilles. *Foucault*. Bloomsbury Academic, London 2014; p. 30.

Another example of partial extrapolation that need to be completed with deconstruction could be that of Robert Darnton's *The Great Cat Massacre and other Episodes in French Cultural History*.¹⁰⁹ He describes his extrapolative modality as "the anthropological mode of history" and consists in the representativeness of an example. He studies how traditional tales change with time.¹¹⁰ He uses the tale, as a "time-tunnel" that supports the extrapolation comparing that time's story with our time's story, generating some kind of "empathic understanding" that works as a kind of deconstruction:

The mental world of the unenlightened during the Enlightenment seems to be irretrievably lost. It is so difficult, if not impossible, to locate the common man in the eighteenth century that it seems foolish to search for his cosmology. But before abandoning the attempt, it might be useful to suspend one's disbelief and to consider a story everyone knows, though not in the following version, which is the tale more or less as it was told around firesides in peasant cottages during long winter evenings in eighteenth-century France.¹¹¹

The "empathic understanding" of Darnton is a partial extrapolative which need a deconstructive extrapolation to be total. To achieve this status it would be necessary to understand how the empathic example can help us to understand our time and to anticipate the future.

¹⁰⁹ Penguin Books, 1984.

¹¹⁰ For example, "Little Red Riding Hood."

¹¹¹ Darnton R., p. 17-18.

Chapter 5: Natural Historia

Natural historical extrapolations

The *non-testimonial* presentation of Natural history is based on anthropogonomic extrapolations that *humanize* the non-human world activating meta-Who-switches. Let us study the following Presentation 27 of a rose, which elevates the rose to the role of the meta-Who of the presentation:

While the sharp objects along a rose stem are commonly called "thorns", they are technically prickles — outgrowths of the epidermis (the outer layer of tissue of the stem). (True thorns, as produced by e.g. *Citrus* or *Pyracantha*, are modified stems, which always originate at a node and which have nodes and internodes along the length of the thorn itself.) Rose prickles are typically sickle-shaped hooks, which aid the rose in hanging onto other vegetation when growing over it. Some species such as *Rosa rugosa* and *Rosa pimpinellifolia* have densely packed straight prickles, probably an adaptation to reduce browsing by animals, but also possibly an adaptation to trap wind-blown sand and so reduce erosion and protect their roots (both of these species grow naturally on coastal sand dunes). Despite the presence of prickles, roses are frequently browsed by deer.

Presentation 27: The thorns of a rose.

We notice that the rose has thorns; of course, nobody could possibly have witnessed the development of the rose's thorns and consequentially this question must be non-testimonial. Yet, how can be explained the existence of the rose's thorns in a Natural historical text? The only possible answer is that it is possible through anthropogonomic extrapolations as "the rose has thorns to defend itself," *because* "if I were a

rose, I would use the thorns to defend myself". Because we have experienced that is difficult to approach to a rose without getting a thorn in one's finger, our conclusion is that *they must fulfil a defensive purpose*. Explaining why the rose has thorns, demands that we "give the rose a human voice" through the activation of the meta-Who-switch. This conjecture is based on the partial extrapolative account of probabilities. The Natural historical account assumes the perspective of an all-knowing being in a possible world but it makes also use of the chronological order of the events as the strict historical presentation does. Extrapolations that characterize the Natural historical presentation substitute a series of Who with a series of meta-Who surrogates; animals and plants, planets and stars become the Alter-ego of the story. In this manner, Linnaeus found that the plants were sexual beings, and Darwin found that man evolved from earlier live forms.

Psychoanalysis as Natural history

An unsuspected Natural historical extrapolation can be found in the work of Sigmund Freud. It is possible to affirm that the psychoanalytical praxis in general has nothing to do with the strict historical praxis. The historian and the psychoanalyst seem to work with the same kind of presentations, but *remembering and forgetting* and the *restitution of the traces of past events* is not what psychoanalysis is focusing on. *The catharsis of repressed desires is not the same as remembering; the free associations of ideas is not the same as reconstructing memory*. For psychoanalysis, "psychic history" is divided into an unconscious and a conscious past. The conscious past manifests in the present as a kind of false consciousness that must be confronted. There is only one way to

access to the contents that are unconscious, and it is through the psychoanalytical praxis; through the act of talking with the Other in therapy. This act, even if it is performed in indirect communication with a historical person as in *Leonardo da Vinci: and a memory of his childhood*,¹¹² *Moses and monotheism*,¹¹³ or as in “A Seventeenth-Century Demonological Neurosis.”¹¹⁴, is never historical because Freud’s categories are a-historical; the Freudian conclusions *are the same for every period*. Psychoanalysis evades solipsism recurring to the praxis of therapy; we can see here the pragmatic turn as the way to solve the problem of the alienation of the mind. It is in therapy where the unconscious contents of the psychic history reveal to intersubjectivity. The sense of therapy is found in the catharsis (the praxical revelation). Both the psychoanalyst and the historian construct their object of study as narratives. But, while the historian is working with every kind of sources, the analyst limits itself to what the patient says during therapy. However, the patient’s rapport does not need to be *testimonial*; it can be a pure fantasy and be relevant for therapy as well. The psychoanalyst can only know “unconscious events” that are par definition “timeless”, reaching them through the narration of a patient made in the present of the therapy. Therefore, the psychoanalytical account is always *anachronic*. Nevertheless, Freud argued about the importance of psychoanalysis to historical studies. He believed that the principal objection to his approach would be that of the individualistic perspective:

¹¹² Freud, Sigmund, *Leonardo da Vinci: and a memory of his childhood*, [New ed.], Penguin, Harmondsworth, 1963.

¹¹³ Freud, Sigmund, *Moses and monotheism*., Vintage books, New York, 1967.

¹¹⁴ Freud, Sigmund. “A Seventeenth-Century Demonological Neurosis.” *Standard Edition of the Complete Psychological Works of Sigmund Freud*. 19; 1961.

The inclination of modern times tends rather to trace back the events of human history to more hidden, general and impersonal factors the forcible influence of economic circumstances, changes in food supply, progress in the use of materials and tools, migrations caused by increase in population and change of climate. In these factors individuals play no other part than that of exponents or representatives of mass tendencies which must come to expression and which found that expression as it were by chance in such persons.¹¹⁵

However, the individualistic approach is not really a problem as it is the anachronism inherent to the psychoanalytical extrapolation. Let consider the paradigmatic narrative that establishes the fundamentals of psychoanalysis as anachronic (partial) extrapolation. Freud wrote in *Moses and monotheism*:

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 he labored 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. In order to be able to live in peace with one another the victorious brothers renounced the women for whose sake they had killed the father, and agreed to practice exogamy. The power of the father was broken and the families regulated by

¹¹⁵ Freud, *Ibid.*

matriarchy. The ambivalence of the sons towards the father remained in force during the whole further development. Instead of the father a certain animal was declared the totem; it stood for their ancestor and protecting spirit and no one was allowed to hurt or kill it. Once a year, however, the whole clan assembled for a feast at which the otherwise revered totem was torn to pieces and eaten. No one was permitted to abstain from this feast; it was the solemn repetition of the father murder, in which social order, moral laws and religion had had their beginnings.¹¹⁶

This identification with the meta-Who of an individual of “a horde” makes the psychoanalytical approach Natural historic. Therefore, the Freudian extrapolation is not testimonial, it is sometimes speculative and sometimes positive, and assumes the point of view of an omniscient, all-knowing being. Our conclusions can be extended to the work of Michel de Certeau who in *The writing of history*¹¹⁷ argues for the historical value of the psychoanalytical approach.

¹¹⁶ Freud, Sigmund, *Moses and monotheism*; p. 207.

¹¹⁷ Certeau, Michel de. *The writing of history*, Columbia Univ. Press, New York, 1988.

Epilogue

Any interpretation of strict historical character must be a statement about the *future* as well as of the past. Historical extrapolations (interpretations or explanations) are manipulations of the future to impact in the present of the historian. Arthur Danto and Michel de Certeau, each in their own manner, give us a defence of the partial extrapolative modality of history. In spite of the limitations of his logical analytical methodology (considering sentences, propositions, etc. instead of *phenomena*) Danto understood the importance of the historical *extrapolation*. According to Danto to be historical, a text must be more than pure story telling; it must also fill the gaps of knowledge with “imagination”, referring with this term to what we will refer as “extrapolation”. He gives us an example about the significance of extrapolations based on “broken technologies”. In the following text, Danto transcends the pure analytical perspective connecting language to the phenomenological account:

Consider spinning wheels. We recognize these at sight, much as we do pennies, apples, or bitterns, and so far as correct identifications of spinning wheels is concerned, we score as high with these as with anything in our world. But spinning wheels are not just further items in the inventory: they are not any longer even, in Heideggerian terms, tools: *they are former tools*, left stranded upon the present by tides of industrial change and preserved here by sen-

timent and by some modest claim to significant form. Their chief role is to be peered at by schoolchildren as tangible holdovers from olden times. And their position in our world is in the antique shop, the authentic reconstruction, the deliberately atavized decor: not in the Zeugganzes of textile manufacture or domestic economy. The natural tense for sentences in which spinning wheels are spoken of is the imperfect, less marked in English than in some other languages, which is employed in speaking of what used to be the case. When sentences about spinning wheels (or anything) shift from present to imperfect, then has a shape of life grown old. For spinning wheels do not, merely as single objects, fall out of the present: they are extruded with changes in the whole system of life, and, when these occur, it is impossible to force spinning wheels back into the world, for the place they once fit into no longer is open.¹¹⁸

Then, he shows us how this broken technology can support the historical extrapolation:

I can entertain a charming fantasy of coming upon some isolated village, where the old ways are kept, not by an act of will on the villagers' part and in the Williamsburgh spirit, but spontaneously. It would have the quality of a dream to enter such a place, with ladies in wide skirts and men using the second-person singular and maidens spinning at the hearths. For this to be possible, for these people really to see spinning wheels as they once were seen, the whole history of spinning jennies, Crompton mules, not to mention punch cards and circuitry, would have to be un-known by them, and hence the whole of modern life. They must see themselves not as deliberately keeping change at bay, but as living life in

¹¹⁸ Danto; p. 295-296.

the natural way. They could not know the changes and events that separate their counterparts in our history from us. They have, in brief, to be ignorant of our past, which would have been the future of their true contemporaries, who are our predecessors. I do not say that Benjamin Franklin would have seen spinning wheels exactly as they would have been seen by a simple girl in Salem, separated by sex and class and wisdom from him. But these are not historical incongruities: Franklin and the Salem girl were part of the same form of life. And I am thinking of periods as defined with respect to a form of life. Periods are not mere chronometric units, e.g., like decades or centuries. Units of time have no interiors, but forms of life do: for forms of life are lived, after all, and so two-stage understanding of forms of life is feasible.¹¹⁹

Danto is defending the partial extrapolative aspects of the historian's work consisting on moving the actual experience of the historian forward and backward in time. Danto disliked the total extrapolation as "theological" because his epistemological approach to the philosophy of history. For Danto, the historian should not be engaged in any form or prediction, because the knowledge about the past can never support a general anticipation of the future.¹²⁰ On the contrary, we believe that trying to avoid making anticipations is futile; it would be the same as to make historical studies irrelevant. If history has something to give us in the present, is that it can be a guide into the future, otherwise it can be really a "kind of theology." The historian's approach to memory through total extrapolations is the only procedure that can make our present sensible and our future successful. This approach implies some

¹¹⁹ Danto; p. 295-296.

¹²⁰ Danto; p. 9.

risks that of believing in the truthfulness of the total extrapolations—the Marxian interpretation of their own total extrapolations as “truths” could be a good example. However, as we said before, *history is not about truth* but *about sense*, and Danto’s disliking of the total extrapolation was based on just this mistake, that of searching of truth in memory.

Index of relevant names, concepts and themes

<i>anthropogonomic experiences</i> and the Who-switch.....	27
Bacon, Francis.....	102
Broberg, Gunnar.....	79
<i>broken of the circle of memory</i>	52
Cusa, Nicholas of.....	88
Darnton, Robert.....	114
<i>defetichization</i> of technology.....	11
<i>diegesis</i> in historical presentations.....	77
Elias, Norbert.....	107
Ellul, Jacques.....	92
<i>encyclopedias</i>	100
<i>enigmacy of history</i>	57
Eriksson, Jonnie.....	102
expository texts.....	30
as When-switches (the calendar).....	74
as Where-switches (<i>locignomies</i>).....	70
based on <i>What-switches</i>	65
based on Which-switches (the cumulus).....	65
<i>extrapolation</i>	
are stories about stories.....	80
as a conclusion based on enthymemes.....	27
as to infer or estimate by extending or projecting known data.....	41
total and partial.....	80
<i>extrapolation, total</i>	
which fills the gap within the fragmented reality allowing the anticipation of the past and the future based on anthropogonomic experiences.....	11
<i>extrapolations partial</i>	
which construct fragmented presentations about the future and the past.....	11
<i>finding</i>	
as looking for information in actual databases.....	58
in memory.....	48
Fludd, Robert.....	99
Foucault, Michel.....	85
Freud, Sigmund.....	116
<i>gnomy</i> , from the Greek <i>gnomon</i> , “means of judging or interpreting”.....	11
Heller, Agnes.....	90
<i>historical breakpoint</i> between <i>finding</i> and <i>searching</i>	51
<i>historical presentation and the future</i>	121
<i>Humanist as engineer</i> the end of the paradigm of criticism.....	9
<i>invisible</i> and <i>silent</i> presentations.....	13
<i>knowledge and memory, exploring, investigating, finding and searching</i> ..	42
Kuhn, Thomas.....	104
<i>labyrinthic extrapolation</i> , when <i>finding</i> and <i>searching</i> are indiscernible.....	85
Las Casas, Bartolomé.....	81
Le Myésier, Tomas.....	88
Lindqvist, Svante.....	111
<i>locignomy</i>	
as the ordognomy of places	

emphasizing the disposition of items	68	Quipu as positive extrapolative device ...	97
Lovejoy, Arthur	93	Ramus, Petrus	98
Lull, Raymond	87	<i>remembering</i> is always <i>testimonial</i>	42
<i>Marxist presentation</i>	110	<i>remembering</i> is <i>to search</i> and <i>to find</i>	42
<i>memory</i>		Rossi, Paolo	97
<i>in scripto</i>	11	Sartre, Jean-Paul	44
<i>in vivo</i>	11	<i>searching</i> according to Sartre	44
meta-switches	30	<i>searching</i> as making hypotheses about of an unknown world	59
methodognoy and technognoy	54	Skinner, Quentin	106
Mumford, Lewis	92	<i>spoken memory and written memory</i>	12
<i>narrative texts</i> as consequence of the <i>Onto-</i> <i>switch (cosmognomies)</i>	79	<i>Switches</i> and the written texts in general:	32
<i>narrative texts</i> as a consequence of <i>Who-</i> <i>switches</i> (existential stories)	79	<i>table</i>	101
<i>non-testimonial presentation in Natural</i> <i>history</i>	115	tangibility respective intangibility of the historical presentation	37
<i>partial extrapolation (positive)</i> finding takes over the act of looking for	96	<i>testimonial</i> <i>reference</i>	34
<i>partial extrapolation (speculative)</i> searching takes over the act of looking for	87, 96	<i>testimonial and non-testimonial texts</i>	36
<i>plain</i> ” explanation of narration is not an historical extrapolation	78	<i>total extrapolation</i> , finding and searching as complementary acts	108
<i>porosity</i> of the historical presentation ...	41	<i>types of extrapolative presentations</i> , labyrinthic or pre-modern, partial or modern and total or contemporary .	82
<i>Proper historical</i> accounts with respect to <i>Natural historical</i> accounts	26	<i>typognomies</i> or <i>cumuli</i>	66
		Wiesenthal, Simon	81

Bibliography

- Adorno, Theodor W. *Negative Dialectics*. Routledge, 1990.
- Agamben, Giorgio . *The Open*. Leland Stanford Junior University; 2004.
- Ankersmit, F. R. "The Dilemma of Contemporary Anglo-Saxon Philosophy of History." Source: *History and Theory*, Vol. 25, No. 4, Beiheft 25: *Knowing and Telling History: The Anglo-Saxon Debate* (Dec., 1986), pp. 1-27. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2505129>
- Ankersmit, F. R. "Danto, History, and the Tragedy of Human Existence." Source: *History and Theory*, Vol. 42, No. 3 (Oct., 2003), pp. 291-304. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/3590864> .
- Aristotle. *De Sensu and the Memoria*. Cambridge, 1906.
- Aristotle. *The Anima Book II*. Published in Aristotle's *De Anima in Focus*. Michael Durrant (editor). Routledge 1993.
- Atkinson, R. F. "Knowledge and Explanation in History. An Introduction to the Philosophy of History." Review by: Haskell Fain. *History and Theory*, Vol. 20, No. 1 (Feb., 1981), pp. 100-106. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2504649> .
- Barclay, James Ralph. *Franz Brentano and Sigmund Freud: An unexplored Influence relationship*. Idaho State college, 1961.
- Beiner, Ronald "Walter Benjamin's Philosophy of History." Source: *Political Theory*, Vol. 12, No. 3 (Aug., 1984), pp. 423-434. Published by: Sage Publications, Inc. Stable URL: <http://www.jstor.org/stable/191516> .
- Boehner Philotheus. *Medieval Logic. An Outline of Its Development from 1250 to c. 1400*. Manchester, 1952.
- Borgmann, Albert. *Crossing the Postmodern Divide*. The University of Chicago Press. 1992.
- Borgmann, Albert. *Technology and the Character of Contemporary Life. A Philosophical Inquiry*. Chicago, 1984.
- Boström, Hans-Olof. *Det underbara skåpet*. Philipp Hainhofer och Gustav II Adolfs konstskåp. Uppsala universitet, 2001.
- Braithwaite R. B. "The nature of believing." *Proceedings of the Aristotelian Society*, Vol. 33, pp. 129-46. Reprinted in *Knowledge and Belief*. Edited by A. Phillips Griffiths (1967), pp. 28-40, Oxford: 1932-1933.
- Brentano, Franz. *Psychology from an Empirical Standpoint*. Routledge & Kegan Paul; 1995.
- Broberg, Gunnar. *Homo Sapiens L. Studie I Carl von Linnés naturuppfattning och männi-*

- skolära. Almquist & Wksell, 1975.
- Broberg, Gunnar. "The Broken Circle." *The Quantifying spirit*. Ed. Tore Frängsmyr, University of California Press Berkley, 1990.
- Carré M. *Realists and Nominalists*. Oxford, 1946.
- Casement, William. "Husserl and the Philosophy of History." Source: *History and Theory*, Vol. 27, No. 3 (Oct., 1988), pp. 229-240. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2504919>
- Cebik, L. B. "Understanding Narrative Theory." Source: *History and Theory*, Vol. 25, No. 4, Beiheft 25: Knowing and Telling History: The Anglo-Saxon Debate (Dec., 1986), pp. 58-81. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2505132>
- Certeau, Michel de. *The Practice of Everyday Life*, University of California Press, 1984.
- Certeau, Michel de. *The writing of history*, Columbia Univ. Press, New York, 1988.
- Clifford, W. K. *The Common Sense of the Exact Sciences*. Dover Publications, Inc. New York, 1955.
- Calinescu, Matei. *Five Faces of Modernity: Modernism, Avant-Garde, Decadence, Kitsch, Postmodernism*. Duke University Press, 1987.
- Danto, Arthur Coleman. *Narration and Knowledge*. (Including the integral text of *Analytical Philosophy of History* from 1965). Columbia University Press, New York, 1985.
- Danto, Arthur C. *Analytical Philosophy of Action*, Cambridge Univ. Press, 1973.
- Danto, Arthur C. *After the Dead of Art. Contemporary Art and the Pale of History*. Princeton University Press, 1997.
- Danto, Arthur C. *The Transfiguration of the Commonplace*. Harvard University Press; 1981/2001.
- Darnton, Robert. *The Great Cat Massacre and other Episodes in French Cultural History*. Penguin Books, 1984.
- Derrida, Jacques. *Speech and Phenomena and Other Essays on Husserl's Theory of Signs*. Northwestern University; 1973.
- Derrida, Jacques. "Letter to a Japanese Friend. (Prof. Izutsu)." In: *Derrida and Différance*, ed. Wood & Bernasconi, Warwick: Parousia Press. 1985, p.1-5.
- Derrida, Jacques. *Husserl och Geometrins Ursprung*. Stockholm, 1991.
- Derrida, Jacques. *Of Grammatology*. Johns Hopkins University Press, 1998.
- Derrida, Jacques. *Writing and Difference*. Routledge Classics; 2009.
- Dray, W. H. "On the Nature and Role of Narrative in Historiography." Source: *History and Theory*, Vol. 10, No. 2 (1971), pp. 153-171. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2504290> .
- Eco, Umberto. *La Struttura assente. (The absent Structure)*. Milan: Bompiani, 1968.
- Elden, Stuart. *Heidegger, Foucault and the Project of a Spatial History*. Continuum. London and New York, 2001.
- Eriksson, Jonnie. *Monstret & människan: Paré, Deleuze och teratologiska traditioner i fransk filosofi, från renässanshumanism till posthumanism*. Lund : Sekel bokförlag, 2010.
- Eriksson, Jonnie. "Aristoteles anomalier". Glänta 1.11; Göteborg.
- Evans, Richard J. *In Defense of History*. Norton & Company, 1999.
- Fain, Haskell. "Association between Philosophy and History: The Resurrection of Specu-

lative Philosophy of History Within the Analytic Tradition.” Review by: Burleigh T. Wilkins. *The Journal of Southern History*, Vol. 37, No. 2 (May, 1971), pp. 280-281. Published by: Southern Historical Association. Stable URL: <http://www.jstor.org/stable/2205826>

Fancher, Raymond. “Brentano’s Psychology From an Empirical Standpoint and Freud’s early metapsychology”, *Journal of the History of the Behavioral Sciences*, xiii (1977), 207-27.

Firth, Raymond. *Symbols. Public and Private*. Cornell University Press. 1975.

Flores Morador, Fernando. *El Algoritmo de la Vida*. Fondo de Cultura Económica. Montevideo, 1994.

Flores Morador, Fernando. *Tierra Firme Anticipada, las Raíces Arcaicas de Occidente*. Banda Oriental, Montevideo, 2005.

Flores Morador, Fernando. *Broken Technologies. The Humanist as Engineer*. Ver 1.1. University of Lund, 2009.

Flores Morador, Fernando. *The Big Bang of History. Visualism in Technoscience*. Lund, 2012.

Foucault, Michel. *Mental Illness and Psychology*. University of California Press, 2008.

Foucault, Michel. *The Order of Things. An Archaeology of the Human Sciences*. Tavistock Publications. Great Britain, 1970.

Foucault, Michel. *The Archeology of knowledge and The Discourse on Language*. Vintage Books; New York; 2010.

Frampton, Michael, “Considerations on the role of Brentano’s Concept of Intentionality in Freud’s Repudiation of the Seduction Theory”, *International Review of Psychoanalysis*, xviii (1991), 27-36.

Freedberg, David. *The Eye of the Lynx. Galileo, his friends, and the beginnings of Modern Natural History*. The University of Chicago Press; 2002.

Freud, Sigmund. *The Interpretation of Dreams*. Wordworth Classics, 1997.

Gallie, W. B. “The Limitations of Analytical Philosophy.” Source: *Analysis*, Vol. 9, No. 3 (Jan., 1949), pp. 35-43. Published by: Oxford University Press on behalf of The Analysis Committee. Stable URL: <http://www.jstor.org/stable/3326398>

Freud, Sigmund, *Moses and monotheism*; Vintage Books, New York, 1955-1939.

Goehr, Lydia. “Afterwords: An Introduction to Arthur Danto’s Philosophies of History and Art.” Source: *History and Theory*, Vol. 46, No. 1 (Feb., 2007), pp. 1-28. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/4502219>

Greenberg, Clement. *The Collected Essays and Criticism, Modernism with a Vengeance*. Volume 4, 1957–1969. Edited by John O’ Brian. University of Chicago Press; 1993.

Heidegger, Martin. *Poetry, Language, Thought*. Perennial Library. 1971.

Heidegger, Martin. *The Fundamental Concepts of Metaphysics; World, Finitude, Solitude*. Indiana University Press, 1995.

Heidegger, Martin. *Being and Time*. State University of New York Press, 1996.

Hill, Stephen. *The tragedy of Technology. Human Liberation versus Domination in the Late Twentieth Century*. Pluto Press, 1988.

Hopkins, Jasper. “Bultmann on Collingwood’s Philosophy of History.” Source: *The Harvard Theological Review*, Vol. 58, No. 2 (Apr., 1965), pp. 227-233. Published by: Cambridge University Press on behalf of the Harvard Divinity School. Stable URL: <http://www.jstor.org/stable/1508619>.

- Husserl, E. *Lectures on the Phenomenology of Internal Time Consciousness*(1893-1917). Kluwer Academic Publishers; 1991.
- Husserl, E. *Geometris Ursprung*. Stockholm, 1991.
- Husserl, Edmund, 1859-1938. *Logical investigations*. Vol. 2, Routledge, 2001.
- Ihde, Don and Selinger, Evan. *Merleau-Ponty and Epistemology Engines*. Springer Publisher, 2004.
- Ihde, Don. *Bodies in Technology*. The University of Minnesota Press; 2002.
- Ihde, Don. *Expanding Hermeneutics. Visualism in Science*. North-western University Press, 1998.
- Ihde, Don. *Experimental Phenomenology. An Introduction*. State University of New York; 1986, p. 45.
- Ihde, Don. *Heidegger's Technologies. Postphenomenological Perspectives*. Perspectives in Continental Philosophy; New York, 2010
- Ihde, Don. *The Peking Lectures*. Working drafts, digital version; Beijing, April, 2006.
- Jenkins, Keith, *Re-thinking History*, Routledge, 1999.
- Keller, Charles M. & Keller, Janet Dixon. *Cognition and tool use. The blacksmith at work*. Cambridge University Press, 1996.
- Kolko, Gabriel. "A Critique of Max Weber's Philosophy of History." Author(s): Gabriel Kolko. Source: *Ethics*, Vol. 70, No. 1 (Oct., 1959), pp. 21-36. Published by: The University of Chicago Press. Stable URL: <http://www.jstor.org/stable/2379612>
- Kress, Gunther & van Leeuwen, Theo. *Reading Images. The Grammar of Visual Design*. Routledge; 2010.
- Kroner, Richard. "Philosophy of Life and Philosophy of History." Source: *The Journal of Philosophy*, Vol. 33, No. 8 (Apr. 9, 1936), pp. 204-212. Published by: Journal of Philosophy, Inc. Stable URL: <http://www.jstor.org/stable/2015375>
- Kuhn, Thomas. *The Essential Tension. Selected Studies in Scientific Tradition and Change*. University of Chicago Press; 1977; p.141-142.
- Lacan, Jacques. *Écrits*. W.W. Norton & Company, 2006.
- Laving, Irving (Editor). *Meaning in the Visual Arts: Views from the Outside*. A Centennial Commemoration of Erwin Panofsky (1892–1968). Princeton, 1995.
- Leathers Kuntz, Marion and Grimely Kuntz, Paul (Editors). *Jacob's Ladder and the Tree of Life. Concepts of Hierarchy and the Great Chain of Being*. American University Studies, 1988.
- Levich, Marvin. "Interpretation in History: Or What Historians Do and Philosophers Say." Source: *History and Theory*, Vol. 24, No. 1 (Feb., 1985), pp. 44-61. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2504942>
- Lovejoy, Arthur. *The Great Chain of Being. A study of the History of Ideas of an Idea*. Harvard University Press. 1961.
- Lund, Hans. *Text as picture : studies in the literary transformation of pictures*; translated by Kacke Götrick Lewiston, NY : E. Mellen Press, 1992.
- Lund, Hans. (Editor). *Interart poetics : essays on the interrelations of the arts and media*. Edited by Ulla-Britta Lagerroth, Hans Lund, Erik Hedling, Amsterdam: Rodopi, 1997.
- Mandelbaum, Maurice. "A Note on History as Narrative." Author(s): Source: *History and Theory*, Vol. 6, No. 3 (1967), pp. 413-419. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2504424>

Mahon, Michel. Foucault's Nietzschean genealogy: truth, power, and the subject. State University of New York; 1992 1992.

Malcolm N. *Knowledge and Certainty*. Prentice-Hall, Inc. London; 1963.

Manuel , Frank E. "Shapes of Philosophical History." Review by: Patrick Gardiner. The English Historical Review, Vol. 82, No. 322 (Jan., 1967), pp. 219-220. Published by: Oxford University Press. Stable URL: <http://www.jstor.org/stable/559655>

Marx, Karl. Theses on Feuerbach. On The German Ideology. Lawrence & Wishart, 1977.

McCullagh, C. B. "Narrative and Explanation in History." Source: Mind, New Series, Vol. 78, No. 310 (Apr., 1969), pp. 256-261. Published by: Oxford University Press on behalf of the Mind Association. Stable URL: <http://www.jstor.org/stable/2252370>

McCulloch, Gregory. The Game of the Name. Introducing Logic, Language and Soul. Clarendon Press, 1989.

Merleau-Ponty, Maurice. *Phenomenology of Perception*. Routledge, 2002.

Merleau-Ponty, Maurice. *The Visible and the Invisible*. North-western University studies in Phenomenology & Existential Philosophy, 1968.

Merleau-Ponty, Maurice. *The Visible and the Invisible*. North-western University studies in Phenomenology & Existential Philosophy, 1968.

Mitchell, W. J. T. "Spatial Form in Literature: Toward a General Theory". Critical Inquiry, Vol. 6, No.3. The University of Chicago Press. (Spring, 1980).

Mitchell, W. J. T. "Diagrammatology." Critical Inquiry, Vol. 7, No. 3. The University of Chicago Press. (Spring, 1981).

Mitchell, W. J. T. *Iconology: image, text, ideology*. The University of Chicago, 1986.

Mitchell, W. J. T. *Picture Theory*. Essays on Verbal and Visual Presentation. The University of Chicago Press, 1994.

Mitchell, W. J. T. *What do pictures want? The Lives and Loves of Images*. The University of Chicago Press, 2005.

Mohanty, J. N. *Edmund Husserl's Theory of Meaning*. Martinus Nijhoff, 1964.

Nadel ,George H. "Philosophy of History before Historicism." Source: History and Theory, Vol. 3, No. 3 (1964), pp. 291-315. Published by: Wiley for Wesleyan University. Stable URL: <http://www.jstor.org/stable/2504234> .

Panofsky, Erwin. Early Netherlandish Paintings. Its origins and Character. Icon Editions, 1993.

Panofsky, Erwin. *Meaning in the Visual Arts*. Penguin Books (1955) 1993.

Panofsky, Erwin. *Studies in Iconology*. Icon (1939) 1972.

Peirce, Charles Sanders. *The Essential Peirce*. Selected Philosophical Writings. Indiana University Press; 1992.

Peirce, Charles Sanders. *Peirce on Signs*. Edited by James Hooper. University of North Carolina Press. 1991.

Prichard H. A. "Knowing and Believing". *Knowledge and Perception*. Clarendon Press; 1950.

Rapp, F. "Analytical Philosophy of Technology." Review by Allan Franklin. The British Journal for the Philosophy of Science, Vol. 34, No. 2 (Jun., 1983), pp. 190-192. Published by: Oxford University Press on behalf of The British Society for the Philosophy of Science. Stable URL: <http://www.jstor.org/stable/687453> .

Rossi, Paolo. Logic and the Art of Memory. The Question of a Universal Language. The

Athlone Press 2000. Routledge 1993.

Rosenkranz, K. and Hall G. S. "Hegel's Philosophy of History." Source: *The Journal of Speculative Philosophy*, Vol. 6, No. 4 (October, 1872), pp. 340-350. Published by: Penn State University Press. Stable URL: <http://www.jstor.org/stable/25665809>

Ruesch, Jürgen & Kees, Weldon. *Nonverbal Communication*. University of California Press, 1969.

Ryle Gilbert. "Are there Propositions?" 1971. Reprinted from 'Proceedings of the Aristotelian Society', vol. XXX, 1930.

Sartre, Jean-Paul. *Being and Nothingness. An essay on phenomenological ontology*. Routledge, London and New York, 2010.

Selinger, Evan (Editor) *Postphenomenology; a Critical Companion to Ihde*. State University of New York Press; 2006.

Sellars, Wilfrid. *Science, Perception and Reality*. Routledge and Keagan Paul. London; 1963.

Skinner, Quentin. *Visions of politics. Vol. 1, Regarding method*. Cambridge: Cambridge University Press: 2002.

Turner, Barry A. and Pidgeon, Nick F.. *Man-made Disasters*. 2nd ed. Butterworth-Heinemann. First published by Wykeham Publications 1978; Second edition 1997.

Uexküll, Jakob von. *A Foray into the Worlds of Animals and Humans. With a Theory of Meaning*. University of Minnesota Press; 2010.

Waldenfels. Bernhard. *Order in the Twilight*. Ohio University Press, 1996.

Wells, G. A. "Herder's Two Philosophies of History." *Journal of the History of Ideas*, Vol. 21, No. 4 (Oct. - Dec., 1960), pp. 527-537. Published by: University of Pennsylvania Press. Stable URL: <http://www.jstor.org/stable/2708100>

Wiener, Philip P. "On Methodology in the Philosophy of History." Source: *The Journal of Philosophy*, Vol. 38, No. 12 (Jun. 5, 1941), pp. 309-324. Published by: Journal of Philosophy, Inc. Stable URL: <http://www.jstor.org/stable/2017147>

Windsor, Philip Ed. *Reason and History: or only a History of Reason*. Leicester University Press; 1990.

Yates, Frances A. *The Art of Memory*. Pimlico, 2008.