

ressources

pages bernard stiegler

videos sous lignes de temps

videos

audio

textes

Vocabulaire

association

l'association

qui sommes nous ?

le manifeste

activités

débats ars industrialis

blogs des membres

publications

école pharmakon





ateliers

Groupe Marseille / Aix

techniques de soi

technologies relationnelles

économie de la contribution



Accueil

Anamnesis and Hypomnesis

Anamnesis and Hypomnesis

Plato as the first thinker of the proletarianisation

1. The industrial exteriorisation of memory

We have all had the experience of misplacing a memory bearing object – a slip of paper, an annotated book, an agenda, relic or fetish, etc. We discover then that a part of ourselves (like our memory) is outside of us. This material memory, that Hegel named objective,[1] is partial. But it constitutes the most precious part of human memory: therein, the totality of the works of spirit, in all guises and aspects, takes shape.

To write a manuscript is to organise thought by consigning it outside in the form of traces, that is, symbols, whereby thought can reflect on itself, actually constituting itself, making itself repeatable and transmissible: it becomes knowledge. To sculpt, to paint, to draw is to go forth to an encounter with the tangibility of the visible, it is to see with one's hands while giving to be seen, that is, to be seen again : it is to train the eye of the beholder and, thus, to sculpt, paint and draw **this** eye – it is to **trans-form** it. Such is also the meaning of what Joseph Beuys calls **social sculpture**.

Human memory is originarily exteriorized, and that means that it is **technical from the start**. It takes shape first of all as a lithic tool, two or three million years ago. A spontaneous memory support, the lithic tool is **not however made to store memory** : not until the late paleolithic period do **mnemotechniques as such** appear. Ideogrammatic writing springing up after the neolithic period leads to the **alphabet** – which yet today organizes the agenda of the manager, but this calendary object is henceforth an apparatus : the **personal data planner**; and it is no longer a mnemotechnic, but a **mnemotechnology**.

Originally objectified and exteriorized, memory which is constantly expanding technically, and extending the knowledge of mankind and its power, simultaneously escapes their grasp and **surpasses** them, calling into question their psychical as well as social organisations, and this is particularly sensible with the **passage of mnemotechnics into mnemotechnologies**. For today, memory has become the major element in industrial development, and **quotidian objects are more and more the supports of objective memory, that is, also forms of knowledge**. Now, these techno-logical forms of knowledge, objectified in the form of equipment and apparatuses, also and especially engender a **loss of knowledge** at the very moment one begins speaking of “**knowledge societies**” and “**knowledge industries**” and “**cognitive**” or “**cultural**” **capitalism**. We are constantly in relation with mnemotechnological apparatuses of all kinds, from the television to the **telephone**, including the computer and GPS guidance systems. Now, these **cognitive technologies**, to which we confide **a greater and greater part of our memory**, cause us to lose an ever-greater part of our knowledge. To lose a cell **phone** is to lose the trace of the **telephone** numbers of our correspondents and to realise that they are no longer in the psychical memory but in the apparatus's. And here one must ask if the industrial and massive development of mnemotechnologies does not represent a **structural loss of memory**, or, more precisely, a displacement of this memory: a displacement whereby it can become the object of a **control of knowledge**, and constitute the essentially mnemotechnological basis of these control societies that Gilles Deleuze began to theorize toward the end of his life.[2]

2. The question of hypomnesis

The backdrop of this hypothesis is an ancient question in philosophy, exposed by Plato as what he calls hypomnesis, and which Michel Foucault would reactivate, also at the end of his life, as the question of hypomnēmata.[3]

We exteriorize in contemporary mnemotechnical equipment more and more cognitive functions, and correlatively we are losing more and more knowledge which is then delegated to equipment, but **also to service industries** which can network them, control them, formalize them, model them, and perhaps **destroy** them – for these knowledges, escaping our grasp, induce an “obsolescence of the

voir tout l'agenda

«

**Juillet**

»

M	T	W	T	F	S	S
				1	2	3
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Chercher dans ce site :

Recherche

Recherche audiovisuelle :

Recherche

Addiction Amateur Attention

Capitalisme Consommation

Démocratie Désir Ecole Economie

libidinale Education Enfance

Industrie de programme Lecture

Libido Mécroissance Média

Noopolitique Pharmacologie

Psychotechnique Pulsion Skholé

Techniques de soi

Technologies de l'esprit technologies

relationnelles économie de la

contribution

tous les tags

derniers articles des membres

Les écrits du numérique #5, 8 & 9 avril - Colette Tron (21/03/21)

Travail et technique : une question se sens. - Claude Paraponaris (31/01/21)

In memoriam Bernard Stiegler - Colette Tron (04/11/20)

Web Studies 3 - 16 octobre 2020 - Colette Tron (13/10/20)

à Bernard Stiegler, « Tout contre » - Alain Bonneau (05/09/20)

À la mémoire de Bernard Stiegler - Alain Bonneau (05/09/20)

Chercher profond le paradigme du 3è millénaire. - Francis Didion (11/06/20)

voir tous les articles

voir les blogs des membres

https://arsindustrialis.org/anamnesis-and-hypomnesis

1/10

human"[4], who finds itself more and more at a loss, and interiorly empty. Thus, the more improved the automobile becomes, the less we know how to drive – the GPS system assisting the driver in his driving will replace him altogether : it will teleguide the vehicle by a system of automatic driving --: we lose our sensori-motor schema formalized by the system as it becomes automatic. The more we delegate the execution of series of small tasks that make up the warp and woof of our lives to the apparatuses and services of modern industry, the more vain we become: the more we lose not only our know-how but our know-how-to-live-well: the only thing left for us is **to consume blindly**, a kind of **impotence**, without these **saveurs** (savours) that only **savoir** – from *sapere* – which is knowledge, can provide. We become impotent if not obsolete – if it is true that knowledge is what empowers humanity.

**Service economies** relying on these technologies whereby behaviour is formalized and managed are characteristic of a hyperindustrial epoch which singularly restages Plato's analysis of hypomnesis. For if it is true that industrialisation in general is the generalisation of a mnemotechnological **reproducibility of the motor behaviour of producers**, **hyperindustrialisation** is the generalisation of a mnemotechnological reproducibility of the **motor behaviour of consumers**. Just as the producer – whose gesture is reproduced, and whose know-how passes into the machine, which turns him or her into what is called a **proletarian** --, the consumer is divested of his *savoir-vivre*, his know-how-to-live-well, and she finds herself in the same stroke desindividualated: she is nothing more than an instance of purchasing power, which is to say of heedless consumerism, which destroys the world heedlessly.

Jacques Derrida, in Plato's Pharmacy[5], based a major part of his project for the deconstruction of metaphysics on his reading of Phaedrus[6] by showing how the dialogue sets off a sophistic hypomnesis against a philosophical anamnesis, where it is **impossible**, following what was described in Of grammatology[7] as a logic of the supplement which the trace is, **to oppose interior and exterior**: it is impossible to oppose **living memory** to this **dead memory that is the hypomnematon**, and which constitutes living memory **as knowledgeable**. Where metaphysics sets up **static** oppositions, **dynamic** compositions must be rearticulated : one must think in terms of processes: Derrida calls the process *différance*.

For all that it is clear that **what Socrates describes in Phaedrus**, to wit **that the exteriorisation of memory is a loss of memory and of knowledge, is experienced today in our daily lives, in all the aspects of our existences**, and, more and more often, in the feeling of our powerlessness, if not of our impotence – at the exact moment when the extraordinary mnesic power of digital networks make us all the more sensible to the **immensity of human memory**, which seems to have become **infinitely reactivatable and accessible**.

This seeming paradox means that **the question of hypomnesis is a political question, and the stakes of a combat**: a combat for a politics of memory, and more precisely, for the constitution of **sustainable hypomnesic milieux**. The exteriorisation of memory and of knowledge, once it has reached the hyperindustrial stage, is at once that which furthers their limitless impact, and that which can implement their control – control by the cognitive and cultural industries of these control societies that now formalize neurochemical activity and the sequences of nucleotides, and thereby inscribe the neurobiological substrates of memory and knowledge in the history of what must be analyzed as a **process of grammatisation**, the most recent stage of which being biotechnologies, the nanotechnologies being the one next in line, raising in crystal clear fashion the question of a **biopolitics, psychopolitics and technopolitics of memory**.

### 3) Grammatization as "the history of the supplement"

The history of human memory is that of this grammatisation.

There is no interiority that precedes exteriorisation, but to the contrary exteriorisation constitutes the interior as such, that is to say, distinguishes and configures it in the very course of what Leroi-Gourhan describes as a process of exteriorisation where this configuring distinction, which is **constantly displacing itself**, each time setting up new relations between the psychical individuals and the collective ones – new processes of the formation of psychical and social individuation, in the sense Gilbert Simondon confers to this expression while stipulating that memory is the **"associated milieu"** of this individuation.[8]

With the advent of mnemotechnics, the process of exteriorisation that is technical becoming becomes concretized in a history of grammatisation.[9] The process of grammatisation is the **technical history of memory**, where hypomnesic memory repeatedly **relaunches the constitution of an anamnestic tension of memory**. This anamnestic tension exteriorizes itself in the form of works of the spirit, where the epochs of psychosocial individuation configure themselves: grammatisation is the process whereby the currents and continuities shaping existences are discretized: writing, as the discretization of the flux of speech, is a stage of grammatisation.

Now, with the industrial revolution, the process of grammatisation suddenly surpasses the sphere of language, that is, the sphere of logos, and comes to invest the sphere of bodies. And first of all, the process discretizes the gestures of producers in view of the automatic reproduction, while at the same moment themechanical and apparatus dependent reproducibilities of the visible and the aural which so impressed Benjamin made their appearance[10] constituting the age of mass media.

This grammatisation of gesture, which is the basis of what Marx describes as the process of proletarianization, that is, of the loss of know-how, and which will continue with electronic and digital apparatuses as the grammatisation of all forms of knowledge in the guise of cognitive mnemotechnologies, including linguistic knowledge having become the technologies and industries of language processing, but also know-how-to live, that is, behaviour in general, from user profiling to the grammatisation of affects, which leads to the cognitive capitalism of hyperindustrial service economies.

Grammatisation is the history of the exteriorisation of memory in all its forms: nervous and cerebral memory, first linguistic then auditive and visual, bodily and muscular memory, biogenetic memory. Thus exteriorized, memory becomes the object of socio-political and biopolitical controls through the economic investments of social organisations which thus **retool psychical organisations** by means of mnemotechnical organs, including machine tools (Adam Smith analyzed as early as 1776 the effects of the machine on the mind of the worker<sup>[11]</sup>) and all the automats, including household equipment.

This is why a thinking of grammatisation calls for a **general organology**, that is, a theory of the articulation of bodily organs, artificial organs and social organisations.<sup>[12]</sup>

Should we restage the question in Phaedrus at the hyperindustrial epoch of the mnemotechnological hypomnesic object, and from the point of view of a general organology (founding a political, an economic and an aesthetic organology), we would discover that the question of hypomnesis constitutes the first version of a thinking of proletarianization, allowing that the proletariat is the economic actor with no knowledge because he has no memory: his memory has passed into the gesture-reproducing machine that the proletarian **no longer has to know about**, but that he must simply **serve**, having thus become a slave once again.

To examine the question of technical memory today is to address again the question of hypomnesis, as both the question of the proletariat, and that of a process of grammatisation where henceforth, **it is the consumer who is deprived of his memory and knowledge**: it is to study the stage of a **generalized proletarianization** brought on by the **generalization of hypomnesic technologies**. **Plato's truth would thus be found in Marx**, providing two supplementary conclusions be drawn:

-Marx himself does not think the hypomnesic nature of technics and human existence, which means he cannot think human life **as ex-sistence**.

-The inaugural struggle of philosophy against sophistics around this question of memory and its technicisation is the heart of political struggle which, from time immemorial philosophy is; and **the reevaluation of the scope of hypomnesis** in Plato, as well as its deconstruction in Derrida, **must become the basis of a renewed political project of philosophy where the main stakes are in technics**.

#### 4. Human memory as epiphylogenesis

If we agree that philosophy begins with Plato, it becomes concretized in its combat against the sophists around the question of memory as mnemotechnics (hypomnesis, but also rhetoric and language technologies based on logographics). Its first question is memory, that is episteme conceived as anamnesis, and **it is the epoch of grammatisation that provokes this question in philosophy**: the latter is constituted as the **affirmation of anamnesis as a reaction against sophistic practice of this hypomnesis** that writing is, defined as the technicisation of linguistic memory, and, as such, as false knowledge (Gorgias<sup>[13]</sup>), technics being in general apprehended by platonic philosophy as a pseudo-knowledge (which knows only contingent, sensible and accidental becoming), true knowledge being posited as the knowledge of the necessary, that is, of intelligible essences of being qua immutable.

**Grammatisation is unthinkable in the context of the couples conceived by Plato on the basis of the opposition between anamnesis and hypomnesis**, which leads him to oppose 1) being to becoming at the same time as 2) the soul and the body, 3) the **intelligible** thought from the **immortality** of the soul and the **sensible** from the **mortality** of the body – which is also the seat of the passions and the trap of the fall --, all of which in the end coming down to 4) the **opposition of logos and tekhnè**. To oppose psychical living memory and technical dead memory is to induce this whole series. Conversely, to rethink memory as a process of grammatisation, where **living and dead compose without end**, is to attempt to move out of these oppositions. Human archaeology and paleontology offer a way of responding to the Platonic opposition of anamnesis and hypomnesis, with a theory of memory posing that **technicity is constitutive of life as ex-sistence**, that is, as **desire** and as **knowledge**: this allows hominisation to be characterized by the appearance of **epiphylogentic memory both hypomnesic and anamnestic in nature**.

The Zinjanthropian was discovered in 1959: it is an Austrolanthropian dating back 1,75 million years – and whose oldest biped ascendants go back 3,6 million years. It weighs about thirty kilos. It is a true biped: it has an occipital hole exactly perpendicular to the top of his cranial box. It has then freed its rear legs for motricity: they are henceforth essentially destined to make tools and to expression, that is, to exteriorisation. Its skeleton was found with its tools in the Olduvai ravine. Based on these facts Leroi-Gourhan showed that what constitutes the humanity of the human, and which is a break in the history of life, is the process of the exteriorisation of the living. That which up to then was a part of

the living, namely conditions of predation and defence, passes outside the domain of the living: the struggle for life – or rather for existence – can no longer be limited to the Darwinian scene. The human conducts this struggle that we could say is spiritual in nature, by non-biological organs, that is by artificial organs that techniques are.

This life is no longer simply bio-logical: it is an existence, that is, a technical economy of desire<sup>[14]</sup> sustained by hypomnesic technical milieus which are also symbolic milieus, such that the drives find themselves submitted to a principle of reality, that is, to a postponement of their satisfaction, which forms a libidinal economy whereby the energy of the drives is transformed into libidinal energy, that is, into desire and sublimation. Technical memory sustains this hallucinating economy through the epiphylogenetic object, as fetish as well as support of reflection of narcissism. Freud, whose theory of the unconscious is a theory of memory and of its censorship, constantly worries this question without being able to formalize it, which will lead to a neo-Lamarckism.<sup>[15]</sup>

We owe to Leroi-Gourhan the thesis that technics is a vector of memory.<sup>[16]</sup> From the Australanthropian to the Neandertalian a biological differentiation of the cerebral cortex takes place which is called the opening of the cortical fan. But starting with the Neandertalian, the cortical system is practically at the end of its evolution: the neuronal equipment of the Neandertalian is rather similar to ours. Now, from the Neandertalian to us, technics evolves to an extraordinary extent, and that means that technical evolution no longer depends on biological evolution. The space of technical differentiation takes place outside the biological dimension, and independently of it, outside this "interior milieu" in which, according to Claude Bernard, the constitutive elements of the organism thrive. The process of exteriorisation is in this respect the process of the constitution of a third layer of memory.

Since the neo-darwinism coming out of molecular biology, and in the wake of the research conducted by Weismann<sup>[17]</sup> it is held that living sexuated beings are constituted by two memories: the memory of the species, the genome, that Weismann calls germen, and the memory of the individual, somatic memory, located in the central nervous system, and where the memory of experience is found. This memory exists starting with the limnees of Lake Lemman studied by Piaget<sup>[18]</sup>, including the chimpanzee, as well as insects and vertebrates. Now, mankind has access to a third memory supported and constituted by technics. A shaped flint-stone forms itself by shaping in organized inorganic matter: the technician's gesture engraves an organisation that is transmitted via the inorganic, introducing for the first time in the history of life the possibility of transmitting knowledge acquired individually, but in a non-biological way. This technical memory is epiphylogenetic: it is at one and the same time the product of individual epigenetic experience, and the phylogenetic support for the accumulation of knowledge constituting the intergenerational cultural phylum.<sup>[19]</sup>

It is because his knowledge is a function of this primordial exteriority of memory that the slave boy Meno<sup>[20]</sup> draws in sand so as to trace the figure where the geometrical object is found: to think his object, he must exteriorize it by organizing the inorganicity of the sand which, in the same stroke, becomes, as a plastic surface capable of receiving and conserving an inscription, the space and the support of the projection of a geometrical concept. However mutable it may be, the drawing in the sand can conserve more durably than the mind of the slave a characteristic of an element of the figure, because the mind of the slave is essentially fluid: his thoughts are constantly passing away and effacing themselves, he is rententionally finite. His memory constantly snaps, his attention is always attracted away from its objects toward new ones, and he has a hard time "intentionalizing" the geometrical object – taking it in perspective in its organic identity, its necessity, its innermost essence: its eidos.

The drawing, as hypomnesic memory, is therefore indispensable to this potential philosopher, the slave boy, and to his passage into action, that is, from dunamis to energeia or entelekheia, that is, to his anamnesis: this drawing constitutes a crutch of understanding<sup>[21]</sup>, a space of intuition entirely produced by the gestures of the slave tracing in the sand, at every step of his reasoning, the figured effects of this reasoning – the sand holding them as results that the slave, his intuition and his understanding have henceforth "in view," and with which they can extend and construct the geometrical proof. Now, the platonic opposition between the intelligible and the sensible, that is, between logos and tekhnè, will make this literally impossible, in the dialogues following Meno – and thus metaphysics will take shape as the denegation of the originary technicity of memory.

Epiphylogenesis, in becoming the process of grammatisation, engenders mnemotechnics which, starting with the industrial revolution make up analog and digital mnemotechnologies, and today, the latter are re-configured within micro-technologies, bio-technologies and nano-technologies.

##### 5. From writing to digitalization

-  
If technics in general constitutes for mankind an originary milieu of epiphylogenetic memory, all technics are not for all that **designed to keep memory traces**. A flint stone is designed to cut meat, to work up matter. It just so happens that **in addition, and spontaneously**, it is **also** a vector of memory. It is however only in the course of the late **paleolithic** era that **the oldest mnemo-technics in the strict sense of the term appear on the epiphylogenetic backdrop**: in the form of mythograms, supports of ritual narratives, but also tattoos on the bodies of sorcerers as the first instruments of calculation. It is only with the advent of the Neolithic era that the

conditions proper to grammatisation as hypomnesis lead to the letter by the transformation of ideographic systems of numbering and the recording of the social memory of the Great Empires coming out of agriculture and sedentarity.

Alphabetisation constitutes the Greek city-state *stricto sensu*: as a community living in the critical knowledge of its rules of life, to the extent that they have been exteriorized and objectified in the form of a written text accessible to all citizens and thus forming the political medium as collective memory – which is also the birth historical society.

The alphabet is a system of diacritical signs made up of less than thirty characters, which can be used by anyone in the role of reader and writer, introducing the possibility of regaining literal access to what took place in the history of society and in thought. Thus, even today, to read the *Meno* in the Greek of the platonic epoch, is to have direct access to Plato's thought: the reader does not have the impression of reading a vague image of what Plato thought, the book places him in **immediate relation** with platonic thought, literal hypomnesis here constituting the element of Plato's thought and more generally of the West as the alphabetical organisation of access to memory – and this is the conclusion reached by Husserl at the end of his life.<sup>[22]</sup>

The alphabet is the first mnemotechnic which is **orthothetic** in nature. *Orthotès* means exactitude, and thesis means position: alphabetical statements are "ortho-thetical" insofar as they pose exactly in spatial form the past time of the speech they record. Alphabetical writing is this literal synthesis of linguistic memory, and it configures thereby properly historical temporality.

At the end of the 15<sup>th</sup> century, the printing press, as the first mechanical technique of reproduction, amplifies and transforms the effects of the literal synthesis: the sudden accumulation of books rapidly creates the necessity of assisting the reader with the first systems of aid in navigation taking up the access to the past inscribed by delegation in instruments of orientation in the accumulation of knowledge – library catalogues, indexes, bibliographies, files that the printed book makes possible by its foliotage, its pagination, its summaries, tables of contents, and glossaries. A process of teleguidance of reading thus takes shape, by the implementation of techniques which today result in electronic editorial supports and RAO systems. Later, with the development of the premises of the contemporary techniques of information processing, a veritable automatic activity of memory will take shape, announcing a process of exteriorisation of the functions of the cerebral cortex and, more globally, of the nervous system. The printing press has for political consequence the appearance of the Reform (as Elizabeth Eisenstein has shown<sup>[23]</sup>) through the possibility extended to everyone to have personal access to the Bible translated by Luther into German. Now, Max Weber has shown that the circulation of printed material is also what allows, through the practice of calculation and the circulation of accounting registers, the advent of capitalism.<sup>[24]</sup>

The 19<sup>th</sup> century sees the advent of analogic orthothetical mnemotechniques that allow for the synthesis of visual and aural perception: like the alphabet, photography and phonography conserve and transmit, exactly, an element of the past, this time through the recording of light and sound wave frequencies produced by an object of perception via a technological hypomnesic apparatus. And just as I cannot doubt being able to access the very thought of Plato in reading the *Phédo*, if I listen to a recording of the voice of Sarah Bernhardt, my emotion stems from my being certain that I am not hearing an image of what may have been her voice, but **this voice itself**. And likewise when I gaze at the face of Baudelaire photographed by Nadar.

These new orthotheses, which can reconstitute much vaster levels of the past than those constituted by the book – and which take in charge the mnesic function which up to then was assigned to sculpture, painting, monumental architecture and the arts of memory studied by Frances Yates<sup>[25]</sup>

-- develop above all in the 20<sup>th</sup> century, as cinematography, radio broadcasting and television : this is the birth of what Adorno will name the culture industries.<sup>[26]</sup> With the broadcast of audiovisual temporal objects which, as they flow by, coincide with the time of the flow of consciousnesses to whom they are henceforth addressed, and given that these consciousnesses form masses of consciousnesses, called audiences, industry can then condition the flow of these times of consciousness and, for example, have them adopt new behavior: behavior favourable to the consummation of products that the process of permanent innovation (the principle of major industry) constantly markets on the global market.

Analog orthothetic techniques create the possibility of a veritable industry of audiovisual temporal objects which favours the mass canalization of attention and constitutes a redoubtable technology of economic as well as political power: it is a **psycho-power**, extending the setting up of the bio-power coming out of the disciplinary society studied by Foucault, and this is a **new stage of grammatisation tantamount for Adorno to a massive social regression**.

For, unlike the literal synthesis, where the writer and the reader coded and decoded the orthothetic recording, and where every reader was potentially a writer, which constituted a set-up of hypomnesis and anamnesis, with analog equipment, machines do the coding and decoding, and this is what allows for industrialisation, that is, **for the separation of producers and consumers**. Whereas with the literal synthesis, it is impossible to be a reader without being enabled to write (not necessarily as a writer), it is on the contrary altogether possible to receive an audiovisual message without having the ability to produce it oneself. Here we see that human memory, which is always both psychical and social, is a technical competency.

Industry, from the beginning of the 19<sup>th</sup> century, in order to amortize the huge productive apparatuses constituted in the development of machinism, progressively installs the society of

consummation.

The problem being that society is not spontaneously prepared to take on these new industrial productions.[27] Industrial society presupposes the permanent modification of the behaviour of individuals who are less and less citizens and more and more consumers – the commodity has become the main operator of the socialisation of individuals --, and **it is in this respect that the media are essential to industrial democracies: they are the vectors of the processes of permanent adoption of consumable novelty in which capitalism consists.**

Ernest Renan showed that every society is founded upon a process of adoption of a fictive past that effaces the differences in origin of individuals and that allows for the identification of a common future through a politics of memory and oblivion (forgetfulness)[28], in which **schooling**, as the institution of the adoption of behavioural programmes through knowledge coming out of the literal synthesis, **is the hub** – a politics studied also by Pierre Nora as the history of the constitution of places of memory. **It is this process of adoption that is radically transformed by the psycho-power developed by industrial society through its analog medias:** the **programme industries** tend to replace the **institutions of programmes**: grammar schools, high schools, and universities.

In our era, this whole apparatus is, however, redeployed to take into account the convergence of the analog technologies of communication and the digital technologies of the information industries. It was during the second half of the 20<sup>th</sup> century that the digital orthothetic synthesis made its appearance, first in the form of information processing, and today, at the beginning of the 21<sup>st</sup> century, in the form of electronic apparatuses of all kinds: video cameras, mobile tele**phones** or voice recorders which are no longer analog. Digital technologies come out of the information industries which are born when, in a world in constant change, information becomes a strategic commodity, allowing us to orient ourselves in this changing situation, constituting in this respect a new system of cardinality.

## 6. Memory and information

The industrial economy of information becomes a reality starting in the 19<sup>th</sup> century. Louis Havas prefigures the industrial dispositif of its exploitation by creating, in 1834, the first press agency in history, which will exploit the telegraphic network as soon as it is put in place. Being essentially a merchandise, information correlates time and value and thus upsets historical time. The networks of current events [actualité], essential elements in the vast dispositif whereby the merchant production of memory becomes global and daily, then permanent – in real time – functioning at the speed of light because current events and information are commodities whose values drop with time, and this is why information is not knowledge (the value of knowledge is constant, or increases, in time). The industries of communication develop in combining with this industry of information. Mass broadcasting implies the concentration of means of production: the cost of a televised image cannot be amortized outside of a broadcast to millions of spectators. A small number of televised images of current events supplies the totality of global stations producing the raw material of memory made by the selection of what can be eventful. From this global dimension in conjoined selection and broadcast to transmission at the speed of light results the industrial fabrication of the present: an event becomes an event and takes place only in being “covered”; even if it can never be totally reduced to this pure artifice, industrial time is always at least co-produced by the media. “Coverage” follows criteria of selection brought together in the aim to produce surplus value. It is a machine to produce ready-made ideas, “clichés”. [29] Information must be “fresh” [30] and this explains why the ideal for all news organs is the elimination of delay in transmission time.

Information is transmitted at the speed of light, that is, without delay, which analog and digital orthoses make possible – there where the literal orthothesis implied an essential belatedness between what can be called the event or its seizure on the one hand, its reception or reading on the other. But it is from the seizure of information, and in its processing, that the event, analogically or digitally in-formed, is submitted to the logic of this light-time. Access to the networks-vectors of industrial memory requires the existence of entry and exit organs, also called interfaces or terminals: the technical advances of photography rapidly lead to belinography then to cinematography leading then to the live tele-transmission of images, whilst the pairing of telegraphic and phonographic principles issues in the tele**phone**, then into live radio broadcasting. If the network of light-time does away with belatedness between the seizure of an event and its reception by infinitesimally reducing the time of its transmission, the instrument of analog or digital doing away as well with all belatedness between the event and its seizure.

Thus conjugating, on the one hand an effect of the real (of presence) of seizure, where event and seizure of the event coincide in time, on the other hand the real time or live time of transmission, where the event seized and the reception of this seizure inaugurate a new collective as well as individual experience of time which would be an exit from the properly historical epoch, given that the latter is defined by an essentially deferred time, that is, by a constitutive opposition, posed in principle, between the narrative and that which is narrated. Thus Pierre Nora can write that “an immense promotion of the immediate to historical status” results from the speed of transmission of analog and digital transmissions:



Landing on the moon was the model of the modern event. Its condition remained live re-transmission by Telstar. ... What is proper to the modern event is that it takes place on an immediately public scene, to always be accompanied by the reporter-spectator or the spectator-reporter, to be seen doing and this "voyeurism" gives to current events both its specificity with respect to history and its already historical savour.[31]

In writing, the medium of History, the rule is that an event precedes its seizure, and that the latter precedes its reception or reading. This configures the presentation of the past, that is, the present (time) – and as the retroactivity of an originary default, of a belatedness of the "narrative" and of the reception of the event with respect to the time of this event, that nevertheless constitutes itself only in this delayed action. The time of relation, of "narrative" is always belated with respect to what is narrated, cited in being re-cited.

The daily and industrial fabrication of time by a press agency is not a mere account of the news: the industries of current events are not satisfied with recording "what happens," for then everything happening would have to be recorded. But this "what happens," happens only in not being everything, by distinguishing itself from all the rest, and information has value only as result of a hierarchisation in "what happens": by selecting what deserves the name of event, these industries co-produce, at least, the access of "what happens" to the status of event. Only that which is "covered" takes place or happens. This is the plight of memory in general, that it (must be) a selection in the present, and that its passing, its becoming past, is its diminution. This is the theme of Funès or memory by Jorge-Luis Borgès.[32] But here, the criteria of selection become industrial – and the selection takes place in real time, and not through this work of time that is history qua Historie and Geschichte.

The conservation of memory, of the memorable (the selection from within the memorisable which is the retention of this memorable constitutes it as such) is always already its elaboration as well: it is never the sheer reporting of "what takes place", and what takes place only takes place in not quite taking place: one memorizes only in forgetting, in effacing, in selecting what deserves to be retained in what could have been – and just as well, in the same stroke, in anticipating, positively or negatively, that which could have happened (retention is always already protention) – and this despite the fact that Freud points out that this selection is also, at the psychological level, a repression, the question being then that of the articulation of psychological memory and social memory, which is, precisely, the condition for the constitution of the super-ego, at least as long as there is one. For an essential aspect of the elimination of deferred time, that is, of the work of delayed action, is that it creates a process of desublimation, which is the consequence of desindividuation and desublimation brought on by the loss of knowledge in the era of industrial hypomnesis.

If it can be said that the media "co-produce" that which takes place, and in this sense producing it in effects, and in this respect anticipating what will happen, this situation has nothing intrinsically novel about it: it is the very law of memory to precede itself and thus, as a result, the past of the present is not situated behind it but has "always already preceded it" as Heidegger says[33] -- without determining it. Nonetheless, something absolutely new happens when the conditions of memorization, that is, the criteria of effacement, selection, forgetting, anticipation, retention-protention, in a word, of temporalization, become concentrated in a technico-industrial equipment whose finality is the production of surplus-value: then the imperative hegemonically ruling the activity of memory is the gain in time to the extent that the abstract capitalisable (money) is never but the credit accorded the future, in advance.

Industrial retention is ruled by the law of the audience as source of credit, in all senses of the term. This law, irresistibly, pre-determines the nature of events themselves: the "actors" anticipate the conditions of the recordability of their acts and act in function of the constraints of this industrial surface of time. In this sense, the media are never satisfied with "co-producing" events: more and more often, they produce them through and through. 9/11 would have been such a production. There is a veritable inversion whereby these media daily relate life with such force that this "relation" of life seems not only to anticipate but ineluctably to precede, that is, to determine, life itself. Now, in the rivalry of these media they tend to become drive-oriented – for such is the law of the sensational – as the staging of terrorist acts, or as the ordinary pornography of television. Consequently, the media tend just as much to destroy the super-ego, which is nonetheless the condition sine qua non for the transformation of drives into desire, that is, into social energy.

#### 7. The ecology of hypomnesis: the time of associated milieus

Unlike analog and digital orthotheses, the literal synthesis presupposes that the receiver of a textual message is literate: can read and write. The literal reader is herself an apparatus, she is "equipped": she accesses on her own the content of a literal recording – providing she has spent the requisite number of years enabling her to instrumentalize, automatize and machinize the functioning of her memory, having transformed herself, by and for herself, into an instrument of reading.

With analog and digital technologies, the functions of coding and decoding are delegated to machines. The VTR "reads" the video tape, the computer the file. The question here is not, however,

the sudden instrumentalization of memory, but of a displacement of its initial instrumentality, whereby it is totally transformed: with the analog and digital technologies, sender and receiver do not coincide with encoder and decoder, and this is obviously not without consequences on the reading as well as the writing of analog-digital memory: when collective memory becomes analog or digital, the relations between statements, the senders and receivers are transformed to a considerable extent. These two poles correspond to what is found at the two extremities of a network: on this side industrial producers, on the other the consumers.

If the continuous flow of information can impulse an actual consumerism of memory, the reason lies as much in the delegation of reading and writing skills to machines, one result of the technical tendency, as to a becoming-commodity of memory: the latter would be impossible without the former. Such is the organisation of the loss of knowledge by industrial hypomnesis, **from which all opportunity for anamnesis appears absent**. These hypomnesic milieux without anamnesis are **dissociated milieux**: they are industrially **disorganized symbolic milieux**, that is, dissocialised and de-symbolised: the symbolic is destroyed here by the application of the rules and regulations of the industrial division of work to symbolic life as a whole through the use of industrial hypomneses, and this industrialization of the symbolic produces a situation in which society is separated into **producers and consumers of symbols**.

A symbolic mnesic milieu is in its structure an **associated milieu allowing for the constitution and the expression of singularities**: in interlocution which is the life of language, a receiver, that is, she who listens, cannot hear, and thus be destined to the language she listens to and hears, only to the extent that she can in turn assume the position of sender: becoming the speaker, and speaking a speech no one else could proffer. In other words, you cannot hear a language otherwise than in being able to speak it, and to speak it in utterly singular fashion. Language is in this respect **consubstantially dialogical**: speech is a symbolic exchange. This exchange constitutes a circuit wherein those who receive, in the form of words, a symbolic address, render what they have received in the form of other words, and to other receivers. In the same stroke, **they participate in the transformation of language itself: in speaking they produce a process of individuation**.

In this process of psychic and collective individuation, one can understand that its condition is that the linguistic milieu is that of permanent interlocution, that is, of the **participation of all in the becoming of the linguistic milieu**. This process is in its essence both psychical and collective: the speaker individuates herself, that is, transforms herself and becomes what she is, by the statements made, but these statements themselves contribute to the trans-formation of the language in which they are pronounced, precisely following the degree of individuation of the speaker herself. **The psychic individuation of the speaker is in the same movement the collective individuation constituting the shared language of the speakers**, who constitute themselves in speaking.

The life of language is in interlocution, and it is this interlocution that the audiovisual mass media short-circuit and destroy. The social milieux in which psychic existences individuate themselves, and along with them the groups in which they exchange and transform themselves in the very course of these exchanges, are in general milieux of individuation **only to the extent that they are participative**: the individuation of the milieu takes place through the individuation of those living in that milieu, and vice versa. Generally speaking, **the service economy, of which the media are the main sector, is on the contrary that which deprives the psychical individual of all opportunity of participation in collective individuation**, that is, to the evolution of his life milieu: **the service economy is based on the short-circuiting of the knowledge** of its users by way of industrial hypomneses.

Now, at the end of the twentieth century, the advent of the **internet network** profoundly modified this situation: participative technologies saw the day, in which the opposition producer / consumer no longer holds, which practices of auto-production of audio-visual memory having become digital develop. **Internet is the age of the hypomnesis constituting itself as an associated technical milieu**, which allows for an **exit from the époque of dissociated milieux**, that is, those wherein the separation of the functions of production and consumption deprive producers and consumers of their knowledge, and consequently of their capacities of participation in the socialisation of the world through its trans-formation.

Simondon speaks of **associated technical milieu** in his analysis of the tide-propulsed electric power plant: the plant as technical milieu is called "associated" because the technical object of which it is the milieu structurally and functionally **"associates" the energies and natural elements composing this milieu**, so that nature thus becomes a function of the technical system. This is the case of the Guimbal turbine which, in the tide-propulsed plants, assigns to salt water, that is, to the natural element, a triple technical function: to furnish energy, to cool the structure of the turbine, and to ensure the water-proofing of the stages by water-produces pressure.

Now the era of digital networked hypomnemata is that of the advent of **industrial hypomnesic milieux where the human element of geography is associated with the becoming of the technical milieu**. And this is why the internet makes possible a typical participative economy of free software and cooperative technologies. Internet is an associated hypomnesic milieu where the receivers are placed in a position of being senders. In that respect, it constitutes a new stage of grammatisation, which allows us to envisage a new economy of memory supporting an industrial model no longer based on dissociated milieux, or on disindividuation.

Industrial hypomnesic memory has become the heart of contemporary societies, and it is striking to see objects of daily use become ever more closely linked to media by becoming communicative: Ipod,



smartphone, GPS navigators, and so many other services that will continue to develop with micro then with nano-technologies. This communicative objects are hypomnesic objects.

Analog mass media imposed an industrial calendarity with their schedules and programs which were also cardinalities: a set-up for orientation in the images of the world by the hierarchisation of news in the temporality of news programs and by the organisation of programs based on targeted audiences in terms of age, sex, prime-time, etc.

The demassification of media, by podcasting as well as by personal media, and by the suppression of the resulting opposition producer / consumer, constitutes a new age of memory – that of a memory becoming once again transindividual: if the associated milieux of processes of psychical and collective individuation, (???) it is because they constitute a process of transindividuation, where what Simondon calls the trans-individual takes shape<sup>[34]</sup>.

And that constitutes the collective memory of the group of individuation. Dissociation is what causes the **short-circuiting of trans-individuation**. And the associated hypomnesic milieu of the digital networks is a point of rupture on this score: insofar as it is cooperative and participative, it can reconstitute the circuits of this trans-individuation. Such a transformation requires **a change of industrial model**. Cooperative digital technologies can be placed in the service of individuation, providing industrial politics of hypomneses are implemented in the service of **a new age of anamnesis**.

Let us call that an **ecology of associated hypomnesic milieux**.

---

[1] Hegel, Encyclopedia

[2]

[3]

[4]

[5]

[6]

[7]

[8] Gilbert Simondon, L'individuation psychique et collective, Flammarion

[9] This concept of grammatisation is borrowed from an analysis by Sylvain Auroux of the history of language knowledge in L'évolution technique de la grammatisation, Mardaga, 1993.

[10] Walter Benjamin, The Work of Art in the Age of Technical Reproducibility

[11] Adam Smith, The Wealth of nations

[12] The fundamentals of this organology are set forth in B. Stiegler, Of Symbolic misery 2, The Catastrophe of the sensible, Galilée, 2004.

[13] Plato, Gorgias

[14] On this point, see especially B. Stiegler, Mécréance et discredit 3. L'esprit perdu du capitalisme, Galilée, 2006.

[15] This is particularly clear in Freud, Moses and monotheism and in The Ego and the Id.

[16] Leroi-Bourhan, Gesture and Speech .....

[17] August Weismann,

[18] Jean Piaget,

[19] This theory of epiphylogenesis is set out in B. Stiegler, Technics and Time vol. 1, The Fault of Epimetheus, 1996, Stanford University Press.

[20] Plato Meno,

[21] B. Stiegler, Technics and Time, vol. 3. The Time of Cinema and the Question of Ill-Being, Galilée, 2001.

[22] Husserl, The Origin of Geometry.

[23] E. Eisenstein,

[24] Max Weber, the Protestant Ethic and the Spirit of Capitalism

[25] Frances Yates, The Arts of Memory,

[26] Adorno, The Dialectic of Enlightenment,

[27] The velocipède, whose fabrication was entrusted to the Parisian Company of Bicycles, created in 1867, could not develop socially without the creation of several journals (five specialised publications come out between 1880 and 1900), while Le Petit Journal, a daily with a huge readership, has its own promotional campaign for the bicycle), competitions, and finally the Tour de France, today still widely covered by media. Before showing performances, the aim of these sports manifestations is to show future cyclists that rolling on two wheels is possible without falling down!

[28] Ernest Renan, What is a Nation ?

[29] The cliché is a process invented by Havas to sell just published newspaper articles.

[30] "Laurel ? --Yeah ? --Where did you put the newspaper ? --Where it belongs ... --You mean? --In the fridge ... --And why in the fridge? -- To have fresh news ..."

[31] P. Nora, Faire de l'histoire 2, p. 295. Telstar, the first communication satellite to « serve as a relay for the transatlantic exchange of televised programmes » also impressed Heidegger, the author

of this quotation, from his *Langue de tradition, langue technique*, p. 19-20.

[32]

[33]

[34] Simondon. ...

à propos de ce site | [arsindustrialis.org](http://arsindustrialis.org) - 2008-2012