TECHNICS AND TIME, 2

MERIDIAN

Crossing Aesthetics

Werner Hamacher

Editor

Translated by Stephen Barker

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Disorientation

Bernard Stiegler

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Translator's Note

The general format of this second volume of *Technics and Time* follows that of Richard Beardsworth and Georges Collins's translation of volume 1, except where Stiegler's formatting itself differs from the previous volume, as in the direct relationship between the four major divisions and their subdivisions. Emphasis in quotations follows the cited texts; Stiegler's own interpolated emphases are marked as such.

Though each volume deals with a discrete set of issues, *Technics and Time* is a true multivolume work; Stiegler here frequently develops a point raised in volume 1, only occasionally referencing the connection, and just as frequently assuming familiarity with the theme or term's previous introduction (e.g., the *what* and the *who*, and of course the Prometheus/Epimetheus subtext). The reading of this volume will be greatly enriched by close attention to this overarching set of thematic developments.

TECHNICS AND TIME, 2

Introduction

In honor of the journey of Hassiba Boulmerka, an Algerian woman

An ordinary person of two centuries ago could expect to die in the bed in which he had been born. He lived on a virtually changeless diet, eaten from a bowl that would be passed on to his grandchildren. Through seasons, years, generations, his surroundings, possessions, and daily routines were close to identical. The world appeared to be absolutely stable; change was such an exception that it seemed to be an illusion.

It was in that world that the categories were forged within which we are still trying to think an *other* world, which first appeared at the beginning of the nineteenth century, one in which stability had become the exception and change the rule. Technics, as technology and techno-science, is the chief reason for this reversal.

We now know that civilizations are historical—that is to say, mortal—and that process is everything. We know it—or believe we know it—scientifically; philosophy began to think it through dialectic, particularly through Nietzsche.

But this knowledge and these thoughts remain abstract and to some extent largely ineffective, since at present not only does the invention of that brave new world quickly named "progress" no longer seem to be the spontaneous bearer of the future but, for the majority of the world's population—Occidental as well as Oriental,[1] it seems to lead nowhere—when it is not a nightmare. And as for those trying to lead it, every day we see further evidence of their impotence. Such is contemporary disorientation.

The Fault of Epimetheus was my attempt to show that this disorientation is *originary*, that humanity's history is that of technics as a process of

exteriorization in which technical evolution is dominated by tendencies that societies must perpetually negotiate. The "technical system" is constantly evolving and rendering the "other systems" that structure social cohesion null and void. Becoming technical is originarily a derivation: socio-genesis recapitulates techno-genesis. Techno-genesis is structurally prior to socio-genesis—technics is invention, and invention is innovation—and the adjustment between technical evolution and social tradition always encounters moments of resistance, since technical change, to a greater or lesser extent, disrupts the familiar reference points of which all culture consists.

Technics can thus appear to be the opposite of "the spirit of the age," of "civilization," of "the human" itself, though it is humanity's very destiny: the two are bound together in a relationship that Gilbert Simondon calls the "transductive" (a relationship whose elements are constituted such that one cannot exist without the other—where the elements are co-constituents):[2] humanity and technics are indissociable. But this relation is a "metastable equilibrium" spanning an irreducible tension, a tension that is time itself: technics's advance initiates temporal extension as such.

Those who oppose technics to civilization do not accept that, as the versions of the Prometheus/Epimetheus myth in Hesiod, Aeschylus, and Protagoras teach us, humans are prosthetic beings, without qualities, and that temporality (as *elpis*, waiting in hope and fear) emanates from this de-fault of and at the origin, this originary disorientation.

They do not accept it precisely because in fact it is sometimes quite difficult to accept, and because one's skin must be sufficiently thick to do so. But, just as important, they do not accept the idea because this fundamental disorientation is at its most extreme limit today: our contemporary experience of it is unique, nearly unbearable, and requires *very* thick skin indeed—and yet strangely, in our current circumstances it is equally important to have very sensitive, indeed *hyper*sensitive skin, and perhaps even . . . *to completely change our skin*.

Seen as originary, disorientation is always constituted by identifiable, characteristic orientation-markers (*cardinalité*(designating its borders, indicating North and South, Orient and Occident. In disorientation, however, Orient and Occident are not simply geographic givens; Orient and Occident designate particular experiences of disorientation. Such cardinal directional markers, insofar as they open (to) the horizon of meaning and configure the motif for all motivation, can be reified only through

experience of and in the world. Observed over significant lengths of time, establishment of such cardinal points is what "adjusts" both techno-genesis and socio-genesis. Through this positing of directions and their adjustments, disorientation opens a space of difference, between here and there, public and private, profane and sacred, strange and familiar, and so on. Adjustments (re-)orient, and originary disorientation is converted, if not occluded. If such adjustments are the engine of all motivation, and if they must be *oriented*, it is because the orient (the other) is missing. From this missing other, cardinal designation produces a *figure* (a motive that is a goal) in which what is being oriented is reflected—the Orient is this mirage.[3]

This cardinal orientation is not successfully occurring today; thus we are suffering from *disorientation as such*. This leads above all to the speed of technical development since the Industrial Revolution, which has continued to accelerate, dramatically widening the distance between technical systems and social organizations as if, negotiation between them appearing to be impossible, their final divorce seems inevitable.

In this crisis, the media, both "direct" and "real time," play a prominent role. *The Fault of Epimetheus* attempted to demonstrate that precisely in order to face the new requirements resulting from the process of permanent innovation at the heart of the Industrial Revolution, information systems have become global, the result having been—through the development of the telegraph, telephone, photography, phonography, cinema, radio broadcasting, television, and the information technology whose emergence is currently taking place—that global memory has itself finally been subsumed into an industrialization directly affecting our psychic processes and collective identifications and differentiations; that is, individuation itself.

The industrialization of memory has clearly been brought about by these analogic and numeric technologies. And they have intensified with the programming industries' most recent biotechnologies. This becoming-industrial of memory is the final stage of what *Of Grammatology* calls a *history of the supplement*. Jacques Derrida has analyzed "life becoming conscious of itself" as the singular cause of a general economy of the program—of which the programming industries are the current form. Life in general is programmatic, but life in dialogue with death ("the human" (*l'homme*() is a process of "memory-freeing," an exteriorizing of the living being's programmatics into the artificial programs constituting an

originary supplementarity of this form of life. What is exteriorized is constituted in its very exteriorization and is preceded by no interiority: this is "the logic of the supplement." "Différance" is the play of the process within which the programmatic, while never ceasing to differentiate itself, engages in life (as evolution and differentiation) by other means than life.

The Fault of Epimetheus focused on showing that the supplement is an always-already materialized trace (as if it were phonic matter, as ephemeral as it can appear), not simply a formal entity whose analysis could be absolutized outside of its material *genesis* itself. The logic of the supplement is the *différantial* logic of already-formed matter: a logic preceding the opposition of form and matter. The logic of the supplement, always already the supplement's history, is a techno-logic through which inorganic matter is *organized*[4] and takes on the appearance of the living organism of which it is the originary supplement. Since this "logic" is comprehensible only through its history, it is a dynamic, whose engine is différance.

If molecular biology is correct in claiming that the sexual being is defined by the somatic memory of the *epigenetic* and the germinal memory of the *genetic*, which in principle do not communicate with each other (to which Darwin devoted himself, *contra* Lamarck), exteriorization is a rupture in the history of life resulting in the appearance of a third—tertiary—memory I have called *epiphylogenetic*. Epiphylogenetic memory, essential to the living human being, is technics: inscribed in the non-living body. It is a break with the "law of life" in that, considering the hermetic separation between somatic and germinal, the epigenetic experience of an animal is lost to the species when the animal dies, while in a life proceeding by means other than life, the being's experience, registered in the tool (in the object), becomes transmissible and cumulative: thus arises the possibility of a heritage.

It was Heidegger who brought the question of heritage as such into philosophy, prepared for by Hegel and Nietzsche. Though a student of Husserl—who defined transcendental philosophy as the analysis of lived experience in the conscious, living present, Heidegger breaks with phenomenology precisely on this point: in the existential analytic of *Being and Time*, the past that *Dasein* has not experienced, which it inherits, is an existential characteristic of its originary temporality (essential to its existence). The issue is no longer that of lived experience but of the future of the non-lived past: a "past of *Dasein*" is *already-there* before one, but it

is only *one's* past to the degree to which this *Dasein* has *had to be*, only to the degree to which it is possible that this past, which is not yet one's own, can or could become one's own. Without this past, this *Dasein* is nothing; and yet, this past is not yet one's past since it was not lived: this already-there past is not yet one's past since *Dasein was not* (did not inherit it) as its proper future: as what was reserved, in that past, for *this Dasein*, as that which, as the *fruit* of inheritance, remained (the) yet-to-come of this past's event, to come through this *Dasein* by the event of its singularity.

But since access to this already-there is only possible to the extent to which the fact of its exteriorization guarantees its preservation (which has constituted the phenomenon of technics since the origin of epiphylogenesis), technical specificities, as the medium or ground for the recording of the past, condition the modalities according to which *Dasein* has access to its past, for each age.

In Paragraphs 73 to 75 of *Being and Time*, Heidegger inquires into the status of what he calls *Weltgeschichtlichkeit* (world-historiality), which is nothing less than the existential definition of intraworldly beings insofar as they give witness to a past bequeathed by the dead—dead who have not simply "passed away" precisely because these traces still accord them a kind of presence, the ghostly presence of past times to which the material witness is a *medium*. And yet after a certain hesitation, Heidegger strips these ghostly beings of their originary value—they are no longer constitutive of originary temporality, and existential analysis did not need to account for their age-specificities: setting these phenomena aside as irreducibly empirical, *Being and Time* remains within metaphysics as a transcendental discourse.

Retreating before the most radical consequence of *Being and Time*, which suggested philosophically for the first time what I have called the "*what*" (intraworldly being, always already technical in that it cannot be analyzed simply as *vorhandene* but must rather be thought of as *zuhandene*), Heidegger remains in fundamental agreement with the Husserlian analysis of time, even at the moment when *Being and Time* pretends to break with Husserl's persistent privileging of the present.

Husserl defines as temporal the object constituted in its duration as flux or flow, and whose flux is coincident with the flux of consciousness of which it is the object. In this flux, Husserl identifies a primary retention belonging to the object's "now," which is its "just-past"; the "now" of a temporal object thus proves to be originarily extended; it is a "large now"

(Granel). Husserl emphatically distinguishes this primary retention from secondary retention: re-remembering, or secondary memory. *A fortiori*, he excludes what he calls the consciousness of *image*, merely a trace of consciousness's non-lived past, in that it does not belong to the lived experience that is, for Husserl, the sole originary and constitutive realm.

The exclusion of the *Weltgeschichtlichkeit* from this originary sphere in *Being and Time* repeats Husserl's gesture in *On the Phenomenology of the Consciousness of Internal Time*, where consciousness of image (what I have called "tertiary memory," the ground of epiphylogenesis, a witnessing of the dead's past) is purely and simply eliminated from the dynamic of the temporal object (*Zeit-objekt*) Husserl analyzes.[5]

If Heidegger finally rejects tertiary memory from the constitutive sphere, it is because the becoming-one's-own of the non-lived past is something *Dasein* can always escape: it takes refuge in intratemporality, which Heidegger assimilates in its entirety and to which *Weltgeschichtlichkeit* belongs. Yet the possibility of the past is *Dasein*'s future, and this future, *in extremis*, is *Dasein*'s death. But death, like the being-toward-death anticipated in every projection of *Dasein* into the future, is what remains as such radically indeterminate, the extreme limit of all possibility. This indetermination, which originarily disorients *Dasein* and leaves it isolated and without clear and sufficient markings by which to identify itself, is what *Dasein* can attempt to determine. *Dasein* thus works to "calculate" the future; it tries to "determine the indeterminate," thus "falling" into "inauthentic temporality." The determining agent is technicity as the intratemporal ground of all instrumental measurement. This is why Heidegger finally conflates technicity and inauthenticity, and more generally why he discards the world-historial (tertiary memory) from the existential analytic.

My effort here, on the contrary, will be to demonstrate how technics actually opens the indeterminate, not only as the originary de-fault of origin, as primordial disorientation on whose grounding an Orient can be posited, but *because* the Orient appears, in indetermination, only in the experience of prosthetic access to the already-there.

That which anticipates, desires, has agency, thinks, and understands, I have called the *who*. The supplement to the *who*, its pros-thesis, is its *what*. The *who* is *nothing* without the *what*, since they are in a *transductive* relation during the process of exteriorization that characterizes life; that is, a process of differentiation by which life proceeds by other means than

life. The *who* is not the *what*: a transductive relationship can occur only between different terms. There is a dynamic of the *what*, irreducible to that of the *who* (the logic of the supplement is not simply anthropological), but that requires the dynamic of the *who* as its anticipatory power. The anticipatory power of the *who*, however, presupposes the already-there of the *what* that gives it access to the non-lived past. Within the transductive relationship of the *who* and the *what*, whose dynamic is catalyzed by the advancing of the *what* (insofar as it is already there, and insofar as it tends spontaneously to differentiate itself in advance from the differentiation of the *who*, since the *who* is always inscribed in a system of *what* overdetermined by technical tendencies), these are two dynamics in negotiation: the one, bio-anthropo-logical, the other, techno-logical. The dynamic of the *who* itself redoubles that of the *what*: conditioned *by* the *what*, it is equally conditional *for* it: within the transductive negotiation of terms, the issue is always one of co-individuation.

In *The Fault of Epimetheus*, I demonstrated that the reification of a technical propensity or body of propensities, leading to an altered technical system, suspends the behavioral programming through which a society is united, and which is a form of objective *epokhē* the social body initially tends to resist. An adjustment then takes place in which an epochal intensification (*redoublement*(occurs; this adjustment is the *epokhē*'s key accomplishment, in which the *who* appropriates the effectivity of this suspension (i.e., of programmatic indetermination) for itself. Technical development is a violent disruption of extant programs that through redoubling give birth to a new programmatics; this new programmatics is a process of psychic and collective individuation.

Contemporary disorientation is the experience of an incapacity to achieve epochal redoubling. It is linked to speed, to the industrialization of memory resulting from the struggle for speed, and to the specifics of the technologies employed in that struggle. In this investigation, I propose to analyze these factors as a contribution to the elaboration of the question of a politics of memory.

In *The Fault of Epimetheus*, I tried to establish *why* the analysis of a temporal constitution must take into account the prosthetic specifics conditioning access to the already-there.

In *Disorientation*, I shall try to show *how* this conditioning has indeed taken place throughout modern history, and why current prosthetics acts as an obstacle to intensification.

All supplement is technics, and all supplementary technics is a storage medium "exteriorizing" a program. But all technical supplement is not thus a technics of memorization: *mnemo*-technics only appears after the Neolithic period. And "the history of being" (the properly "historical" age of historiality) begins *along with* the history of language. In the first chapter of *Disorientation*, "The Orthographic Age," I explain that the literal prosthetics of orthographic writing constitutes a unique ground of belief—which opens the space of and for politics by providing access to a past that thus becomes properly historical. When I read Plato or Heidegger, I do not question the reliability of the already-there. I do not ask: am I certain of having dealt appropriately with the thought of Plato or Heidegger, who are, after all, dead and buried? I believe, and I believe from the outset that I have dealt appropriately with their thoughts, despite the real possibility of typographical errors or interpolations. It is philology's business to establish the authenticity of source materials; once they have been established, I no longer doubt having access, as if I were there, to Plato's or Heidegger's orthographic thoughts, constituted in the very possibility of a certain after-the-fact re-constitution.

All collective belief constitutes itself within a state of supplementarity that conditions collective memory. For centuries, rationality and monotheism, in the forms of all the religions of the Book, have constituted the foundation of belief; it is this foundation that the new supplementarity destroys, to the degree to which it is not ap-propriated, and the entire question is one of knowing the degree to which it is ap-propriable. If (cultural(memory *can* be industrialized, it is because it is techno-logically synthesized, and if this synthesis is originary, it is because the *who* is defined by its *retentional finitude*: its memory being limited, essentially failing, radically forgetful (Epimetheus's primary trait); it must be strengthened by supports that are not only its means of self-conservation but the very conditions of its *e-laboration*. Orthographic writing enacts a wrenching out of context that intensifies memory's industrialization still further (disorientation being precisely this decontextualization, this disappearance of place), which has actually been occurring since epiphylogenesis's origin—and which thus also, paradoxically, gives place. The second chapter here, "Genesis of Disorientation," describes this process of giving place, analyzing the conditions by which the programming of all essentials, rhythms and memories, suspensive techniques, styles, and idiomatic differentiations occurs, and providing evidence that all territorialization

(all conquest of space) is initially *de*territorialization, all communitization *de*communitization, all epochal orientation *dis*orientation.

Memory is always the object of a politics, of a criteriology by which it selects the events to be retained. The industrialization of memory, the focus of the third chapter, *is the industrial synthesis of retentional finitude* subjected, as pre-judgment, to the specific criteriology of calculable credit as the operator of economic development, as opposed to both theo-logico-political discredit and integrist compulsions (lay and religious) that industrialize the already-there. The programming industry, as the operator of memory's industrialization, exploits the possibilities of memory's synthesis as opened out by analogic, numeric, and biologic technologies. Through on-line communication, data processing in real time, and genetic manipulation linking the somatic and the germinal, the structure of the event in all its forms is radically modified. Contemporary technical mediation destroys the process of communication that once grounded orthographic writing. And thus arises the question of the politics of memory. Today more than ever the political question is memory, in that it is industrialization itself that raises the question of selection, of pre-judgments, of the criteria of both judgment and the resultant decisions to be made in the possible beyond of the real itself, technoscience no longer constatively describing the real's existence but rather performatively exploring and writing about the new possibilities to be found there. This chapter demonstrates finally that, paradoxically, the cognitive sciences that previously put informatic prosthetics at the very heart of their heuristic can actually conceptualize nothing of retentional finitude, and yet simultaneously also misunderstand the very Husserlian intentionality to which they refer, and which is only revealed in analysis of the temporal object.

These first three chapters of *Disorientation* present an outline of the history of tertiary memory, whose role in temporalization is reconsidered in the final chapter, "The Temporal Object and Retentional Finitude," for two reasons:

> —On the one hand, as I have said, Heidegger is not able to think the thought of the constitutive nature of the *what* because while breaking with Husserlian privileging of the lived and living present, he rejects the consequences of this rupture, which I shall elaborate in detail: the impossibility of isolating primary, secondary, and tertiary memories; Heideggerian analysis of modern technics cannot account for contemporary technics because it has never analyzed retentional finitude.

> —On the other hand, the question raised in Husserl's *On the Phenomenology of the Consciousness of Internal Time* is the temporality of synthesis in transcendental consciousness, and insofar as this is the age of the generalization of industrial temporal objects (since the flux of worldwide collective consciousness increasingly coincides with the flux of those temporal objects that are the products of the programming industry in all its forms), the industrialization of memory must be thought of simultaneously as part of the philosophic question of synthesis and as a rupture with what, within that question, cannot think the synthesis that is already prosthesis as tertiary memory.

In *The Fault of Epimetheus*, I laid out an interpretation of *Schuldigsein*, the subject of *Being and Time*'s second section, as being-in-default rather than being-at-fault, notwithstanding the fact that the first volume of *Technics and Time* speaks centrally about Epimetheus's *fault.* And yet in fact this fault is *Epimetheus*'s, not that of mortals who are only mortals because of this fault. There is in fact no mortal fault but rather an originary *de-fault* of origin that opens like a default of community, the community of a default. The distancing of *Weltgeschichtlichkeit* is in a close correlation with what remains in it of the theology of culpability in Heidegger, and it is also in this sense that he fails in his reading of the most profound thinker of power, that is to say of technics: Nietzsche, who writes on the Greek experience of crime:

> "How is it possible? how could it actually have happened to heads such as *we* have, we men of aristocratic descent, of the best society, happy, well-constituted, noble, and virtuous?"—thus noble Greeks asked themselves for centuries in the face of every incomprehensible atrocity or wantonness with which one of their kind had polluted himself. "He must have been deluded by a *god*," they concluded finally, shaking their heads. . . . This expedient is typical of the Greeks. . . . In this way the gods served in those days to justify man to a certain extent even in his wickedness, they served as the originators of evil—in those days they took upon themselves, not the punishment but, what is nobler, the guilt.[6]

What monotheism calls original guilt or original sin, in terms of the myth of Epimetheus, does not belong to mortals but, as forgotten, to the Titan Epimetheus, Prometheus's brother and (re)double. This is what our age still does not know how to think.[7]

Does this mean, as I have been told *The Fault of Epimetheus* might be seen to suggest, that *speed* should become the substitute for God's infinity—and that, consequently, technics should become infinite

retentionality (that is, in fact, God's memory) faced with the finitude of failings?

At the beginning of this introduction, I reviewed speed's primordial role in the current experience of disorientation. Even more important, in *The Fault of Epimetheus* I proposed that speed's acceleration is at the very heart of the process of exteriorization, as the conquest of mobility, which would also characterize vital differentiation in general, speed thus constituting "the absolute past" of all present: that past that was never present to the temporality of "conscious life itself." But one need not have a substantialist understanding of what I call speed here. Speed is our experience of a difference in forces: speed in and of itself is nothing. "Speed" expresses the test and the act of a potential constituted through the negotiation of tendencies. In originary disorientation, this differential of forces-as-potential is the difference of *rhythms* between human beings and organized inorganic being (technics), as well as the de-phasing brought about by technics' structural advancement, in its differentiation, on the living being it constitutes and differentiates by bringing it into being. In addition, according to André Leroi-Gourhan, speed more generally designates mobility, as difference of potential, among concurrent species. It therefore becomes necessary to think the (transductive) relation between concurrent species, and this relationality itself necessarily leads to an overall increase in mobility, through which local conditions and strategies may produce reductions in speed, even quasi-immobilities. But this deceleration remains a figure of speed, just as immobility is a figure of movement.

That said, technical supplement itself, whatever its advances, is itself finite. As supplement, it opens out a gap that can be seen as in-finite, but that in fact is not infinite but rather, more precisely, indefinite (the principle of indetermination), and, relative to retentional finitude, quasi-infinite; the technical supplement is the substance of the transductive relation between the *who* and the *what* as distributed in the places constituting irreducible singularities: as events. Speed is the result of the negotiation between the dead and the living—between primary retention and tertiary memory. To think the current age through speed is thus to think—before decomposition into space and time or opposition of form and matter—the general modification of event-ization (*événementialisation*(that is taking place before our in-credulous eyes, and consequently to examine the conditions of an *epokhal* redoubling.

§ 1 The Orthographic Age

> By the public use of one's own reason I understand the use that anyone as a scholar makes of reason before the entire literate world.
>
> —Immanuel Kant, "An Answer to the Question: What is Enlightenment?"

Orthography, Orthotheses, and Photography

In the final chapter of *The Fault of Epimetheus*, I asked: "If the already-there is what constitutes temporality in that it opens me out to my historiality, must not this already-there also be constitutive in its positive facticity, both positively constitutive and historially constitutive, in the sense that its material organization in form constitutes historiality itself, prior to and beyond history?" (240). In enumerating the principal elements of a positive response to this question, Heidegger nonetheless excludes one particular hypothesis.

To account correctly for *Dasein's* historiality would be, first of all, to account for the very possibility of accounting for it, to analyze the conditions through which *Dasein* is capable of thematizing its own historiality, and that would only be possible when this historial *Dasein* conquers its historicity and thus enters into the history of being (as forgetting of being): in the following, we shall explore why this history is indissolubly that of the letter and of citizenship. Writing, in its alphabetic specificity, as exact recording, an orthographics, that liberates a new possibility of access to the past, configures properly historical temporality.

The already-there is positively and historially constitutive in its facticity, and the inaugurality of History within historiality occurs along with the techno-logic emergence of an orthography of the already-there. To plumb this hypothesis more deeply is to develop a history of the supplement whose fundamental concepts have yet to be elaborated beyond that bequeathed to us by *Of Grammatology*.

It is necessary at this point to abandon the primordially phonologic understanding of alphabetic writing in order to privilege its orthographic character. What does *orthos*, *orthotes*, mean? What irreducible connection is woven between the integrity of the geometric line and the accuracy of the minutes and records of secular law and politics? Marcel Detienne (1988) sees this emergence of exactitude, so important to Husserl, as preceding the phonology of the new forms of writing that constituted Greco-political debate. Philosophy has always understood orthography as separate from phonology in that it posits rectitude (the rigor of *alētheia*, the uprightness of all rules "for the soul's direction") within the *phonē* as present to itself; that is, within the *who*. I suggest that this presence-to-self is no more than the effect of the techno-logic exactitude of the *what*, a techno-logy also at work in the polishing of forms from which proto-geometric invention (Husserl 1970 [1939]), and thus the possibility of idealities, will emerge.

The essential characteristic of orthographic (called phono-logic) writing is the exactitude of the recording of the voice rather than the exactitude of the recording of the voice: it is a matter of recording rather than voice. Similarly, photography is an exact recording, and this is why I shall here make a case that may appear paradoxical: to revert to the question of writing when speaking of the phenomenology of the photograph as laid out by Roland Barthes in *Camera Lucida*. I shall keep the photograph separate from all its "phonocentric" temptations, in order to discover that in addition to orthographic writing, other kinds of quite precise recordings also exist; this grouping I shall call memory's orthothetic substructure (*support*(.[1]

Photo-Graphic Certitude as Conjunction of Past and Reality

> [Walter] Benjamin's essay ["A Short History of Photography"] and [Roland] Barthes's last book [*Camera Lucida*] could well be the two major texts on the question of the Referent in technical modernity.
>
> —Jacques Derrida, *Psyché: Inventions de l'autre* (1987)

The phenomenological goal to which Roland Barthes devotes himself in *Camera Lucida* is to learn at all costs what photography is "in itself, by what essential feature it is to be distinguished from the community

of images (Barthes 1982 [1980], 3), and the thematic of the Referent that Barthes develops initiates a photo-graphic correlation combining "death and the referent in a single system" (Derrida 1987, 291): I can now actually see someone dead; that is, who has not passed away. *The past is present* in the photograph. The dead live. The photograph "implies 'the return of the dead' in the very structure of the image and in the phenomenon of the image." The photograph's intentionality is the Reference, as certitude, that the photographed object *was*. "I call 'photographic referent' not the *optionally* real thing to which an image or sign refers but the *necessarily* real thing which has been placed before the lens, without which there would be no photograph. Painting can feign reality without having seen it."[2] And contrary to discourse, which always carries within it the possibility of its being fiction, which is also the possibility of all generalization, "in the photograph I can never deny that the thing was there. A double appears there: reality and the past" (Barthes 1982 [1980], 76). This conjunction is the very principle of photo-graphic certitude. Just such a viewing of the photograph's essence demonstrates the intentionality of photography: photography's the *noēma* is: "that was."

As the conjunction of the past and of reality, the photograph's referent only appears in its predication—an effect in which "a little spark of chance, of the here and now" (Benjamin 1977, 200) can be left in reserve. This predication is the miracle of identical repetition of what took place only once. Photo-graphed, a singular instant has disappeared forever, which at the same time will remain forever and return endlessly in the repetition of the radically paradoxical contingent, as improbable and a priori as impossible as the return of the dead. An instant, an instant that as such would not be able to return.

As repetition, this "as such" signifies an objectivity: that of the photographic lens. Within the realm of photographic objectivity, the referent "adheres" to its recording. The result is that stylization is excluded from the photograph, as is generalization. This mechanical relationality of adherence (of *exactitude*) is what identifies the very instant of the Real *as such*.

Conjunction as Photographic That-has-been

The traditional photographic device activates numerous techniques, in two complementary operations: the optical and mechanical system of lens

and shutter, and the chemical support system by which the lens's object is revealed. The *spectrum*,[3] as revelation of the chemical reaction on photosensitive film, is the interface between these two technical systems, and of two separate viewings: those of the photographer and of the spectator.

The spectrum only appears by delayed action, *après-coup*: the rapport between the instant of capturing the object and the effect of that objectively captured instant on the spectator—the spectrum—occurs as a deferral (*différement*(of the instant of which it is the inconceivable repetition; the chemical revelation of the object "will touch me like the delayed rays of a star" (Barthes 1982 [1980], 81). Photographic that-has-been is constituted in this delay, and "was possible only on the day when a scientific circumstance (the discovery that silver halogens were sensitive to light) made it possible to recover and print directly the luminous rays emitted by a variously lighted object" (ibid., 80). "Directly," that is to say without delay, the speed of light balanced against the time of the chemical reaction—a connection producing the time of the posing, or the shutter speed, whose timing must be carefully calculated.

> The photograph is literally an emanation of the referent. From a real body, which was there, proceed radiations which ultimately touch me, who am here; the duration of the transmission is insignificant; the photograph of the missing being will touch me like the delayed beams of a star. A sort of umbilical cord links the body of the photographed thing to my gaze: light, though impalpable, is here a carnal medium, a skin I share with anyone who has been photographed. (80–81)
>
> The thing of the past, by its immediate radiations (its luminances), has really touched the surface which in its turn my gaze will touch. (81)

The photographic vision is a re-vision. Its delay is originary. The past returns completely as that present that it was, without loss and yet only as a remainder: a spirit, phantom. Returns as a past present for me even though it can never be a question of my past: it can only be a question of a past that I have not lived. Astral, emerging from the night of an infinitely distanced past, photo-graphed light links my present to a past I have not known, yet which is as familiar as a temporal maternity. Light is a carnal medium in the night of time in which an instant to be re-born in my present is conceived, and that then makes possible a temporal identification of the instant of the posed object with the instant of capture that constitutes the pose—an adjustment between shutter speed and the

reaction time of the silver salts that produce, albeit as delay, the reversal of the past instant and the present of the gaze; its transfer, which is to say its *passing*:

> What founds the nature of Photography is the pose. The length of this pose is unimportant; even if it is a millionth of a second . . . , there has always been a pose, since the pose is here not the sitter's attitude, nor a technique of the camera operator, but the length of an "intention" of reading: in looking at a photograph, I fatally include in my gaze the thought of that instant, however brief it may be, in which a real thing appears, immobile, before the eye. I transfer the present photo's immobility onto the captured past, and it is this that constitutes the pose. (78)

The instant of the capture coincides with the instant of that which is captured. This co-incidence of two instants grounds the possibility of the conjunction of the past and of reality, in which the spectator's presence coincides in its turn with the appearance of the spectrum. This conjunction wrenches the viewer out of the real and into an ineluctably lost past, a wrenching that is also an emanation perceived "like the delayed beams from a star": in the photographic, the past is presented (this is the meaning of "real," here a predicate of a time before that of the living being)—but it can only be presented as late. The vision is only a re-vision. But it is not only a re-vision: it is also an *adieu*.

History and Narcissism

The spectrum is the phenomenon itself, and not just the photo-graphic device's support—though they cannot rightly be distinguished. It is at once the specter, the return of the dead, the spectacle, and specularity. Barthes is here engaging with a particular historical thematic: the question of photographic narcissism. The photo-graphic spectrum is a mirror placed at the far end of a history of gazes, mirages, and surfaces in which the spectator is reflected. In this mirror, it is History itself, as mirror, that will be broken.

And what mirrors constitute history? What is the history of gazes, what are their stages, what is the first mirror? What happens to the gaze when it is gazed *at* in the photograph? These questions must be confronted in the name of the image of the self, as the constituting of the *imago* across those reflections comprising the techniques of imagery: paintings, songs, narratives, writings, photographs, cinematography, videography, television,

numeric and analogo-numeric images—and to guide the modalities of identification and dissociation of these gazes' "subject." With the photograph, a new dissociation-identification is initiated: an other experience of death.

Some appearances exist, as instrumental concretizations of the mirror stage, whose clarification is always essentially deferred, and in which the self (re-)sees itself; these constitute, "for us," the "in-self and for-self." To see myself in a photograph is to (re-)see myself in a de-severing (*Entfernung*) and extension (*Erstreckung*) that open a space between here and there, past and future, thus rendering possible both the passage of time and a way of approaching the self without which I could never see myself. This always-already retarded specularity allows me to see myself, here, in my photogram,[4] death. The subject of the photograph, captured by the lens, is mortified, deadened: objectified, "thinged." It becomes phantomic. In the exemplary experience of the subject's (re-)seeing him- or herself photo-graphed, in the pose's wake, late, too late, death comes into view.

For Barthes, the singularity of the photographic rapture of time is distilled in the portrait of Lewis Payne [Powell]:

> In 1865, the young Lewis Payne attempted to assassinate the American Secretary of State, W. H. Seward. Alexander Gardner photographed him in his cell; he was waiting to be hung. The photograph is beautiful, the young man as well: this is the *studium*. But the *punctum* is: *he is going to die*. I read simultaneously: *that will be* and *that was*: I observe with horror a future anterior in which the stakes are death. In giving me the absolute past of the pose (aorist),[5] the photograph speaks to me of future death. This points me to the discovery of this equivalence. Before the photograph of my mother as a child, I say to myself: she is going to die: I tremble, like Winnicott's psychotic, from a catastrophe that has already taken place. Whether the subject is already dead or not, all photography is this catastrophe. (96)[6]

All photos are this catastrophe, all narcissism is a thanatology, but photographic narcissism is unique: it inaugurates an other(ed) connection to the end, an other(ed) time.

Manifesting a unique connection between myself and my end, *photographic* deferral gives me a particular temporalization: photographic being-for-the-end is unique.

Visual Clocks, Delaying Mirrors, and Objective Melancholy

The camera is a vision- (or rather *re*-vision-) clock, producing images that are also mirrors. These media, interfaces, and surfaces of my *imago* are the *spectra* beaming out in deferring, delayed-action mirrors.

As in Heidegger, the clock (the *what*, the technical device for *measuring* time) throws us elsewhere (finally to the *who*). But here, technical equipment—the camera—is not an accident: the phenomenon itself—time—is constituted here. Or rather, the temporal exists only to the degree to which there is the accidental; time is constituted in or as technicity, which is originary accidentality. Barthes's reading gives us a glimpse into the ways in which the technological conditions for access to the already-there may condition the very possibilities of our anticipation. *Tekhnē* produces time. So we can easily comprehend phono-logic writing, as orthographic *tekhnē*, by going in a direction running parallel with this analysis but reframing it according to its characteristic technological specifics.

The photograph contains an objective melancholy binding time and technique together; yet throughout the entire history of visuality, time and technique have been constituted solely through the refraction of their instrumental and technical surfaces: différance as a single movement of spacing and temporalization.

The Unnamable

The *punctum* is measured by a particular attraction for certain photographs, an affect essential to the photographic experience, yet difficult to predict and thus to analyze. Barthes calls this difficulty adventure. "Certain photographs produce it in me, certain others not," and when it occurs, it causes a reaction. Emotion, motivation, the mobility of a double movement, of two movements crossing each other, "a certain photo suddenly attracts me; it brings me to life and I bring it to life." Only such an attraction, such a double movement and only regarding this or that photograph, creates the possibility of a phenomenology manifesting Photography's very essence. This movement has a double origin; it is a mirror movement: the spectator's toward the spectrum, which is the *studium* (as culture); and that of the spectrum toward the spectator, which is the *punctum* (as release or liberation (*dessaisie*(, and as *noēma*). "It is not I

who seek (the *punctum*(out (as I invest the field of the *studium* with my sovereign consciousness), it is this element which rises from the scene, shoots out of it like an arrow, and pierces me" (26). This adventure is a return that will fracture the studium; "a photograph's *punctum* is that accident which pricks me (but also bruises me, is poignant to me)" (27), while the *studium* is programmed by my cultural codes. The *punctum* is as unpredictable and undeterminable as the end in being-for-the-end. It is "intractable," it insists, resists; it cannot be resisted and it returns ceaselessly. It is incessant, necessary. The particular detail through which it is basically never given but foreseen is a detour for the return of the interminable: "we say 'to develop a photograph'; but what the chemical action develops is undevelopable, an essence (of a wound), what cannot be transformed but only be repeated under the instances of insistence (of the insistent gaze)" (49). The *punctum* is irresistible—and unnamable. This impossibility marks its true disorder, the sole truly moving one: "the *studium* is ultimately always coded, the *punctum* is not. . . . What I can name cannot really prick me. The incapacity to name is a good symptom of disturbance. . . . Despite its clarity, the *punctum* should be revealed only after the fact" (51, 53). The *après-coup* of chemical revelation is doubled by another after-effect. The *punctum* is indescribable; in fact, it is not only indescribable—its description is indefinitely deferred: it is always immanent, never there—like the indetermination of the end. It is for this reason that it essentially reveals itself (as the incessant) in delay, in lateness, in its absence (often in the absence of the *spectrum*), and as a wound in the spectator. The *punctum* works: it works as différance. As photography's essential phenomenon, the *punctum* is a work of mourning. This phenomenology of the photograph is also the act of mourning for Roland Barthes's mother. The Winter Garden Photograph is not itself pivotal. Only out of—after—it (*Elle*((the photograph, the mother, the photograph of the mother), does the photo's essence reveal itself as a question of time. Through all the rooms he visits in *Camera Lucida* ("And so I went, alone, through the apartment where she died . . . "), Barthes carries the photograph along as he speaks of his mother and his mourning, mourning and its work, the work of time as *punctum* of mourning. The work of time that erases nothing, but rather differs (within the photograph, the *punctum* cannot be reduced further). Mourning is ineffable, just as the *punctum* is unnamable, an enigmatic phenomenon that only ever appears because it always returns.

Exactitude, Certitude, and Différance

The presence in the past of the that-has-been, the essential principle of photographic certitude ("I can never deny that the thing was there"), as conjunction and co-incidence, is the test of a separation within that very certitude of and in presentation: an incertitude lies at the very heart, and within the very principle, of certitude, such that certitude immediately reverses itself, is turned back, and returns to us: "It has been here, and yet immediately separated, irrefutably present, and yet already deferred" (77). This vacillating certitude is more than an—more than one—exactitude: what is exact is mediate, developed (*élaboré*(, and "falsifiable." This is what I have called an "ortho-thesis": a straightforward position, the upright honesty of the past, of the recording of what happens, of what happened, a right, true memory;[7] and yet this exactitude unavoidably gives rise to an imprecision. This memory, which is only true as a mirror—is reflected in a symmetry by which it is reversed: in photographic specularity, the "right" is always already the "left," the true always already the false; all straightforwardness ineluctably becomes warped, even if and just because when I look at a photograph of myself, I can actually see myself without the initial effect of looking in a mirror where I see myself in reverse—it is the mirror of a mirror image. This figure of disorientation affects all proper memories, all forms of "ortho-thesis," and most notably the rectitude—the rightness—of memory that then characterizes the form of writing that provides for the possibility of a right, *orthos*.

This specular reversal, fixed in the photograph, reveals photo-graphically the différance at work in all presence. What is "irrefutably present, and yet already deferred," is the test of time as such.

Intervista of the Immobile Engine of All Movement

This tragic phenomenology is clearly at work in Federico Fellini's *Intervista*. It is a narcissistic film overall, and even more so when, directing himself with Marcello Mastroianni, Fellini visits Anita Ekberg in her villa. There, at Ekberg's house and in the film *Intervista*, the two actors re-watch together, thirty years later, the famous scene in *La Dolce Vita* in the Trevi Fountain in Rome. Anita Ekberg and Mastroianni re-see themselves. Anita watches Anita. She views herself, but in this self-viewing she

appears to herself as predicated: she is young—predicated in the past as well as in the present and the future. Seeing her past self, in the present—in this present in which she says to herself: "I passed"; where she re-sees a past present, a present in the past, she sees the present passing, in the present and ineluctably. She discovers life as predication (conjugation, *ptōsis*), life predicated beyond the past, the present, and the future, by the time in which they occur: life sees itself dead; youth and age are only possible for one who *will be* old, who *was* young, who *is* walking toward the end. Death gives life its time, its passage, its difference (the difference between past, present, and future, and difference between those who differentiate the truth from time)—and here [in this scene], that is what can be seen.

Anita sees herself, finally—one should say *en fin*, *in the end*—in a tragic mirror-play; she sees her future ad infinitum as reflected in her past and reversed there as *her* end—the undetermined, written in huge letters across all films, as a fabulous and interminable symmetry. Anita, seeing herself, does not say (as Barthes does looking at the photograph of Lewis Payne): "he is dead," "he is going to die" (a telescoping whose stakes he manifests magisterially—and what happens to Anita is also a tele-scoping and a tele-scopics). Anita does not merely say "she" but, inverting the propositional order: "*I*," "*I* am going to die," and: "*I* am dead"—I *am* dying, *already* dead. *I am mortal*. Fellini's cinema itself says this, in viewing itself in *Intervista* as the past of *La Dolce Vita*: I am mortal, my telescopics become real: a tele-vision.

This scene is all the more disturbing for us in that Anita is unsituatable: she is herself and yet not herself, since she is playing (we are at the cinema), and yet she isn't playing (we are in life). She plays a game that can no longer be played, "she plays herself," as one might say without remarking its impossibility. Here she plays it as what absolutely escapes her—and escapes us at the same time. In this scene as in no other we see the absolute intimacy of the actor and her role. We cannot see Anita here as a character; and yet we can only see Anita as a character. She plays the serious absolute of all games: the stakes, finally, beyond or beside the game, what puts the game into play and yet *is* not "playable." She plays it. What the character "Anita" sees, as played by the actress Anita, is a young actress who stays *in character* in a fascinating and nearly unbearable way; she who does this, for herself as much as for us, just as much in *Intervista* as in *La Dolce Vita*, and who, staying in character, understandably cracks there, is torn apart from herself in the essential sense that she returns to herself

as her own phantom, just as she returns to us; as one who can no longer distinguish between the real and the fictive, the cinemato-graphic.

In cinematography, where the actor's body is conflated with the character's, where the film's passing is necessarily also the actor's past, the moments of life of a character are instantly moments of the actor's past. That life is merged, in its being filmed, with that of its characters. This explains once again what Barthes has said regarding cinema, and which is valid here for the character herself: the photo-graphics of the cinematographic, and the photo-sensitivity developed in it while remaining the undevelopable of all photography, is in principle the very archi-realism of every camera lens:

> The cinema combines two poses: the actor's "this-has-been" and the role's, so that (something I would not experience before a painting) I can never see or see again in a film certain actors I know to be dead without a kind of melancholy: the melancholy of Photography itself (I experience this same emotion listening to the recorded voices of dead singers). (79)

Intervista's unique aspect is that it presents us with actors who let us see that they *are going to* die. And it simultaneously transgresses against another cinematic rule Barthes discusses:

> The Photograph's *noēma* deteriorates when the Photograph is animated and becomes cinema: in the Photograph, something has posed in front of the tiny hole and remained there forever (that is my feeling); but in cinema, something has passed in front of this same tiny hole: the pose is swept away and denied by the continuous series of images: it is a different phenomenology, and therefore a different art which begins here, though derived from the first one. (78)

In cinema, as after-effect, this sequence of fictive instants comes to us as a succession of moments from real life, from a progression that remains with us like a continuum of presents forming someone's past and future, in-forming us about the person; it is the (ghostly) past of the actress herself playing her past and her present, while playing with them, the character's present in the actress's past, and the actress's present in the character's past. It is the movement itself that appears to be a pose, a deposit, a remnant: what *was* a remnant but remains in motion, whose very movement is immobilized and is (re-)presented only by its immobility. This cinematography "presents" us with the immobile motor of all movement.

This is the height of *e-motion* (which the cinema has provided since *Arrival of a Train at La Ciotat*); the doubled scene of *La Dolce Vita* in *Intervista* is doubly disturbing for us—we for whom *La Dolce Vita* is a reality in which we foresee ourselves via *Intervista*. We see ourselves there only while melting away, disappearing. And what do we foresee in ourselves, in *Intervista*, when we watch Anita Ekberg watching herself, foreseeing her death, a depth without depth, the unbearable burden of her narcissism, through the photosensitive *psyché* of her photogenics?

The Orphan-Image of Anyone's Past

The past of any cinematic character coincides with the actor's. The actor's life is essentially impersonal, a life of characters—of anyone:

> The feeling of strangeness that overcomes the actor before the camera, as Pirandello describes it, is basically of the same kind as the estrangement felt before one's own image in the mirror. But now the reflected image has become separable, transportable. (Benjamin 1978, 230)

This separation is an orphaning of the image and of the *imago*, a function of the conjunctive coincidence and the photo-graphic delay it contains, cinematically heightened to dynamic immobility. Because the cinematic character illustrates the actor's impersonality, her anonymity, it is possible that the character's past, which is also the actor's, can equally be *our* past. Character, actor, and public all participate, together, in the conjunctive coincidence and constitutive delay of cinematographic *noēma*, in a photographic instantaneous-ness, "heightened" by fictive animation to a dynamic state as the equivalence of three pasts, of three passages (and three presents, three futures): those of character, actor, and public. This is precisely why we can thus be disturbed by the double scene. For us, *La Dolce Vita* cannot be simply a fiction: it is a film existing in a reality that is our own, because of its beauty, of Anita's and Mastroianni's beauty and Fellini's genius, a reality we discover by seeing it at work as reality in a fiction. *La Dolce Vita* is a shared past: it is our past that we see being reexamined, being reflected in Anita's watching of her own past. Redoubled in *Intervista*, this fiction appears as manifestly real, the reality of a fiction that contains the opposition between fiction and reality in which we find ourselves when, watching a film, we say "it's only a movie."

Woody Allen brings a similar character/actor/public relationship into play in *The Purple Rose of Cairo*, a film about the showing of a film, "The Purple Rose of Cairo," and its characters, its actors, their appearance before and connection to a theater full of spectators, and in which the character/actor descends from the screen—which the audience can enter; all of this in front of another audience, we the audience of *The Purple Rose of Cairo*, which projects us there even while crystallizing us, like silver halides under the effects of the light in which the room is reflected. Today's very narcissistic cinema can only reflect a narcissism intrinsic to our age, a reflection of its technologies of the mirage, of the reflection; of telescopics, of tele-vision.

Between Echo and Narcissus— Impersonality In Person

The separation of actor and image, and that of the impersonality and transportability resulting from it, are such that "[n]ever for a moment does the screen actor cease to be conscious of this fact. While facing the camera he knows that ultimately he will face the public, the consumers who constitute the market. This market, where he offers not only his labor but also his whole self, his heart and soul, is beyond his reach. During the shooting he has as little contact with it as any article made in a factory" (231).

The public is absent from the performer and the performer from the public; their only relation is remote, only in a differing that is only generated as presence. This absence-in-presence exists between the actor as performer and the actor seeing herself, as her own public—too late. Mastroianni said that "there is a public behind the lens, and it is a mirror in which you see yourself"—in which nothing is to be seen of a person other than the person's impersonality. In this cyclopic sense, no one is to be seen. The lens's impersonal objectivity opens (on) the absence in which impersonality is presented in person, as [Mallarmé's] "l'absente de tous bouquet (the absent (one) of any bouquet("[8]—the lens's opening, which is that of publicity and an impersonal impersonation in performance. In the course of the film it produces a unique effect. As an unfolding of the past that Anita and Marcello reencounter, *Intervista* is a passage by which we foresee ourselves. *Intervista*'s fiction, its story line, guides us by an excess of reality. There is a great deal to deduce from it regarding the

photographic, cinematographic, and videographic presentation-memorization of current events, of "reality." And the paparazzi in *La Dolce Vita*, as on television, play a unique role in *Intervista*. In *La Dolce Vita*, Anita plays an actress named Sylvia; Mastroianni, a writer and journalist named Marcello.

As for the voice, Proust also spoke of certain telephonic effects (and not only, as with Barthes here, of phonograms) when, using the telephone for the first time, he heard the distant voice of his grandmother who sounded to him as though she were already dead (Proust 1981 (1920(, 135)—for the first time: who appeared to him for the first time in her "last time." Throughout *Ulysses Gramophone—Two Words for Joyce* (1986), Derrida speaks of the telephone as a machine that produces phantoms, ghosts; he refers to the phonograph, *The Magic Mountain*'s "little musical coffin" (Mann 1996 [1929], 459), as being deaf to the voice that speaks, writes, sees, and shows itself. Hearing oneself speaking while (re-)reading oneself, hearing oneself while (re-)watching oneself, "writing" between Echo and Narcissus. Photography, cinema, phonography, telephonics, television: these are the analog technologies sharing a connection that inaugurates a narcissism without figure nor precedent—a connection to the end. All the possibilities of "deconstruction" emanate from *this* technological horizon" (Derrida 1976 (1967(, 11).

Pandora, the Function of Misunderstanding of Silvering and Orthopedics

According to Lacan, the mirror constitutes the human as such, the mark in animality: it re-marks itself, as a person, as *persona*. The "mirror stage," in psychic genetics, is the moment when the infant already projects the correction of his *gaze* onto the chimpanzee, whose "instrumental intelligence" is superior. But the "mirror stage" is the discovery of the impossibility of being discovered there: reflection will be possible in the mirror stage only through de-fault of self. The mirror's uncompromising reflection throws back only a delay. The mirror stage will never be candid; it can only reflect, in accordance only with an *ideal-I*: "the *I* is precipitated in a primordial form . . . that situates the instance of the *me*, from before its social determination, in a line of fiction, forever irreducible to the individual self—or rather, who will only join asymptotically to become the subject" (Lacan 1966, 90). In this moment that he will never

know, his death, the identification process will really be accomplished, purified of all fiction—the moment of matter deprived of all movement, of auto-movement: of *anima*, *psychē*, an asymptote Lacan calls the "function of misunderstanding"; misunderstanding in reflection, in the tain[9] of an originary un-knowing (*inscience*(I have called *epimētheia*.

The mirror institutes an interminable *maieutics*[10] *of the self* in which exteriority is constitutive (the desiring body originarily instrumentalized), reflecting a *Gestalt*, producing it in a remarkable symmetry in which the subject delays itself, follows after, finds its motorizing functionality in the immobility of its image (its pose):

> The total form of the body by which the subject precedes, in a mirage, the maturation of its power is only given to itself as *Gestalt*, that is in an exteriority in which, certainly, this form is more constituting than constituted, but in which above all it appears to itself in a relief that solidifies it and in a system that inverts it, in opposition to the turbulence of movement it is challenged to animate. (90)

The function of narcissism in the maturation process of the pigeon gonad, or in the development of the cricket's gregariousness, is "inscribed in an order of homeomorphic identification that would envelop the question of the sense of beauty as formative and erogenous"; what conclusions would it be necessary to reach to account for *La Dolce Vita*'s beauty, or Anita's, Mastroianni's, or Fellini's work, for us. What is it, amorphously, materially, that takes form in it, that informs it, *de*forms it? *Who* is Pandora?[11] Who is she in this image, new with each appearance, that transports us back to the time of the *what*? Questions that only make sense since the age of technical exteriorization as the moment of humanization and the (de-)realization of the motor-mirage. Here, it is necessary

> to recognize the effect of an organic insufficiency in humanity in the spatial enticement manifested by the mirror stage. The function of the mirror stage proves for us, consequently, to be a particular case of the function of the *imago*, which is to establish a relationship between the organism and its reality. . . . But this relation to nature is altered in humanity by a certain dishesion within the organism itself, but a primordial Discord . . . , a true, specific prematurity of the birth of humanity. The *mirror stage* is a drama whose advent is precipitated by an insufficiency of anticipation—and which for the subject, caught in the lure of spatial identification, fabricates the phantoms

that are succeeded by a fragmented image of the body into a form we call *orthopedic* of its totality. (90)

The Price of Being, the Course of Thought, Christology, Crystallography

The mirage's symmetry contains a retarding that is inverted in advance, constituting the subject (in its temporality and spatiality), marked in its birth as a link to the end (insufficiency becoming anticipation). This dynamic, proceeding from an originary exteriority (which is not opposed to any interiority, since it constitutes it, a "lure" that reflects only the image of statues, of phantoms and automatons sculpting an "orthopedic" form); this dynamic is experienced in life as *prostheticity*: the mirror stage is essential unaccomplishment; the mirage is deformation. All mirrors are deforming ones, just as much the *tekhnē* of the gaze as of time. There are only clumsy, gauche memories, especially when they are accurate.[12] Reflection is disorientation. The issue, then, is to orient oneself, despite everything, in the unthought: to identify and to specify this prostheticity and the orthopedics that it produces when it becomes ortho-thetic, and to do so as techno-logic affect. As worked stone, chipped flint reveals first surface, then line, and finally a point in its orthographic ideality, leading then to virtual realities and that enigmatic tele-presence prosthetizing bodies today by depriving them of their self-sameness. The history of the *quoi* [what] is the history (the stages) of the mirror. The very historicity of being(s) is the evolution of a featherless biped fitted with orthopedic soles, even when it is a tattooed, barefoot tramp; the withdrawal of the hand, as alluded to by Walter Benjamin, Henri Focillon, and André Leroi-Gourhan, has actually long been that of the feet. For example, since this race toward auto-mobility is always narcissistic reflection, what sort of sole is the aqua-dynamically patterned rubber of a Michelin tire? This calls for a phenomenology of the racecar driver—which could be developed ad infinitum from the mortal spectacle of his solitude, just as from all long-distance races. The one who does not race, who does not dance, thus ignores an aspect of thought.

There is only birth, as mirror of being-for-death, through the phenomenon of pre-maturation. The facticity of the already-there could be translated into the biological analysis called neoteny.[13] The *who* is a *who?*[14] as a result. But this is not biological: it is technological, as in any

technics of the body—walking, dancing, or swimming: a biology cannot be sufficient for us, neither a Bergsonian vitalo-spiritualism nor even its splendid extensions in Leroi-Gourhan and Simondon. Prematuration is *promētheia* and, as mirror stage, its tain sends back the phenomenal image of Epimetheus, constituting the *who* within the *what*. As for phenomenon *as* phenomenon—above all else as the separation of the *who* and the *what*, all objectivization of the *who* and all subjectivization of the *what* (of this tain, this reflective surface that Antonin Artaud calls the "subjectile," this iron wall through which Van Gogh must scrape) is techno-logical différance.

Lewis Payne paid the price of Epimetheus's default. Such is the price of being. Can Payne be resuscitated? What christology, as a discourse on salvation from (as heritage of) default, can be discovered inscribed in the orthopedic crystallography of all tains, of all silvery reflectors, from worked flint to liquid crystal, by way of silver halide?

The Accident of the Occident, or the Paradox of Supplement

The photograph's and cinema's exemplarity, continuing their analysis, consists in their being orthographic and orthophonic forms.

The photograph and cinematography proper, as memorization technologies, must be thought through the concept of the *ortho-thesis* characterizing not only the various kinds of analogic technologies (photography, phonology, cinematography, etc.) but also memory's inscribed technology (orthographic writing)—and all numeric technologies as well. Orthothetic memories are "exact," "right." For Heidegger, this rightness, as *orthotēs* (exactitude), is memory's disaster, *a-lētheia*; Heidegger shares this position with Plato, though Plato simultaneously denounces it. Always and essentially engendering an awkwardness or *in*exactitude—inadequation, which is different—, this rightness's ontological difference will have been an epoch like the history of being, like "the time of History" with which Herodotus begins. This disaster of memory, this accident that occurred in the Occident, is also what "saves" it, the very paradox of technics Derrida refers to as the supplement of orthographic writing.

What is at stake here relates to the specificity of linear writing within the history of archi-writing, an orthographic writing that is also phonological, that is always initially understood as such, and whose specificity

within the history of the trace Derrida often seems at least to blur if not to deny: the entirety of grammatology is a preventative against a *Fable* that this spirit (*psychē*) that is writing tells. *Of Grammatology*'s triple epigraph ("a scribe," Rousseau, Hegel) begins: "to focus attention on the ethnocentrism which, everywhere and always, had controlled the concept of writing (and on(. . . the *logocentrism* . . . which was fundamentally . . . nothing but the most original and powerful ethnocentrism" (Derrida 1976 (1967(, 3). This ethnocentrism consists of simultaneously understanding alphabetic writing as being "in itself and for itself the most intelligent" and of relegating it "out of the full word." This is a logocentrism that concurrently debases writing in general in the face of a *logos* understood as *phonē*, and elevates alphabetic writing as being the best, the least-bad, or of nearly-not writing.

From there, grammatology will go on to assert that speech is "always already writing," that writing and speech must be thought of within the concept of archi-writing: thought must endure the mourning of presence. Archi-writing is the logic of originary supplementarity, the thought of non-originarity as deconstruction of the metaphysics of presence.

But how would it be possible not to reject writing without privileging a certain kind of writing—which phonologically conceals itself behind the voice? "The phoneticization of writing (is(the historical origin and the structural possibility of philosophy as of science, (the(condition of the *epistēmē*" (88). Even if "forever and more and more, (science makes its appeal(to non-phonetic writing," even if "a purely phonetic writing is impossible and has never finished reducing the non-phonetic," the fact remains that something is opened up with a phonetization that runs through all writing, for all writing (for all humanity), a new age is inaugurated as an effect of this opening toward the completion of alphabetic writing:

> Reflection on the essence of mathematics, politics, economics, religion, technology, etc., communicates most intimately with the reflection upon and the information surrounding the history of writing. The continuous vein that circulates through all these fields of reflection and constitutes their fundamental unity is the problem of the phoneticization of writing. This phoneticization has a history, no script is absolutely exempt from it, and the enigma of this evolution does not allow itself to be dominated by the concept of history. To be sure, the latter appears at a determined moment in the phoneticization of script and it presupposes phoneticization in an essential way. (88–89)

Phoneticization has always already begun, and at the same time, a moment determined *by* writing, (wrongly) called "phonetic writing," marks the appearance of the very concept of history. Thus, not only must questions arise regarding affirmation of alphabetic writing's superiority in and for itself, but also of its irreducible singularity: phonocentrism is always already concealed there—as if it were impossible to state any specificity that would not immediately claim superiority. This essential tendency of the grammatological operation can be understood as an elementary precaution vis-à-vis the always-immanent return of all those phonocentric, grammatological, and ethnocentric reflexes. Beyond that, there is in this initial calling into question an analytical necessity, as grammatology's specifically heuristic principle: to the extent that the question of archi-writing *must* be established beyond the restricted concept of writing, and to the extent that the privilege generally accorded to alphabetic writing as being truest to the voice (as erasure of the supplement and as the place that returns to the *phonē*), are necessarily part of the metaphysics of presence, then to disturb and *destabilize* linear writing's specificity would come back—at the very least—to efface all metaphysical privileging accorded to speech, through the very writing that is truest to it.

But the issue at hand is not to efface the supplementarity of writing itself: this strategy is not safe from contradiction. Grammatology lays out a logic of the supplement in which supplementary accidentality is originary. The history of the supplement must be understood as awkward, accidental history whose result would be an essential-becoming of the accident—but which would also require speaking of an accidental-becoming of essence. But is the grammatological project not weakened in advance in frequently blurring phonological writing's specificity, in suggesting that most of the time virtually everything that takes place in it was always there beforehand, and in not making this specificity a central issue (and does all of grammatology not, in a certain sense, necessarily banish just such a question)? Does this not bring up the possible objection that in the end, the supplement will really not have been?

The Thought of Technics and the Link to the Future

Narcissism is woven into delayed-action mirrors informing (recording) the impersonal. The impersonalization undergone by both cinematic actor and spectator belongs to a history of the gaze in which the book constitutes a specific "stage"; "the impersonal knowledge of the book," which "does not ask to be guaranteed by the thought of a single person, which is never true since it can only create truth in the world of all and through the very advent of this world. . . . Such a knowledge is linked to the development of technics in all its forms and makes a technics of speech and of writing" (Blanchot 1982, 13). An impersonal knowledge, an authority without an author, inheres in writing as technics. The issue precisely here is that of the orthographic writing of the book initiated by Herodotus, thus introducing a time when a presentiment of closure, "reading in our years," already exists—an other impersonality, an other understanding of the occurrence of the impersonal, where the "more considerable" change is inscribed within the advent of the "impersonal powers" of modern technics (Blanchot 1993 (1969(, 383).

"Modern technics" is the question Derrida addresses in *Memoires—for Paul de Man*, [a question] of technics and of science that has become technoscience, with its

> irreducible link between thought as memory and the technical dimension of memorization. . . . In recalling this unity of thought and of technics (thus also . . . of thought and of technoscience) through memory, de Manian deconstruction . . . is devoted precisely to the means of not rejecting, in the exterior and inferior shadows of thought, the immense question of artificial memory and the modern modalities of archivization that today bring about, with a rhythm and to dimensions incommensurable with the past, the totality of our connection with the world (within or beyond its anthropological dimension) . . . and as part of a transformation that affects all relations with the future. This prodigious change augments not only the size, the quantitative economy of this memory labeled artificial, but its qualitative structure as well. (Derrida 1989b, 110)

This would clearly be a question of knowing something about the quality and the transformation in those relations with the future said to be part of this prodigious technoscientific mutation that

> undoubtedly leads to an inability to subscribe to Heidegger's statement (and to everything it implies): *Die Wissenschaft denkt nicht*, science does not think.
>
> And what goes for science goes for technics: "Modern science is founded on the essence of technics." (111)

Technics thinks, and must not the connection to the future be redoubled, as the thought of technics, as what thinks technics? Isn't it necessary to think what we think as technics, as it thinks? It thinks *before* us, being always already there before us, being the being insofar as there is a being before us; the *what* precedes the premature *who*, has always already preceded it. The future—which is "the task of thinking"—is in the thinking of (by) technics. We must understand this "of" in two senses that, taken together, produce time: to think technics as the thought of time (re-doubled).

What differentiates the "modern modalities of archivization" from premodern archivization, most notably from Herodotus and the city about and in which he writes? What are the characteristic technics of archivization (of recording) that Herodotus makes possible: what is the identifying characteristic of phonologic and linear writing, specifically regarding a connection to the future? In what way has it, over time, transformed the to-come? The issue at hand is that of writing as orthographic memory according to its properly techno-logic modalities. The rupture, as defined by Maurice Blanchot, occurs along with that of phonologic and linear writing. The event itself is rendered possible in the emergence of a specific characteristic of différance, of a new function of artificial memory that will be investigated here through the concept of the orthothesis, which is simultaneously maintained and altered within "modern modalities of archivization" (analog and numeric)—the "connection to the future" it contains being commensurate with this maintenance and this alteration.

Orthotēs and *Alētheia*

Heidegger uses the word *orthotēs* , as exactitude or correctness, to characterize Plato's "doctrine" of truth—the first step in the forgetting of being that is also the first step in the history of being:

> When, in the cave, liberated man is diverted from the shadows in order to consider things, he already directs his gaze toward what "has more of being" than simple shadows: *pros mallon onta tetrammenos orthoteron blepoi*, "thus

> turned toward what has more of being, he doubtless sees in a more exact fashion." To pass from one state to another is to see more exactly. Everything is subordinated to *orthotēs* , to the exactitude of the gaze. (Heidegger 1990a, 153)

This new interpretation of *alētheia* is the debut of metaphysics:

> Henceforth the essence of truth ceases to open out, from its proper fullness of being, as the essence of non-veiling, but it displaces itself in order to come into coincidence with the essence of the Idea. The essence of truth abandons its former fundamental feature: non-veiling. . . .
>
> The question concerning the non-veiled is displaced: henceforth it aims for the appearance of evidence and, through it, the view corresponding to it, for the justice and exactitude of this view. . . . Plato treats and speaks of *alētheia* when he thinks of the *orthotēs* and posits it as decisive, as the sole and self-same reasoning of thought.
>
> Truth is no longer, as non-veiling, the fundamental trait of being itself; but, in becoming exactitude by reason of its subjugation to the Idea, it is henceforth the distinctive trait of the being's understanding. (153–58)

In 1962, Heidegger recognized just such a sense of *alētheia* as *orthotēs* in the pre-Socratics (Heidegger 1990b, 136) (the "transcendence of the Greeks" thus constituting "the work of thought"): the history of being is its forgetting. "The being at rest in destiny is no longer proper to thought" (74). The new question is that of an "other thought" within the retrocession before the (Greek) inauguration of the history of being.

Why, then, does the truth (of being) understand itself *originarily* as *orthotēs* ? What is the inauguration of the history of being *as orthotēs and as* transformation of a connection to the future? An objection to the concept of différance posed by Marlène Zarader will allow us to establish the terms of this question decisively:

> For Derrida and his disciples, the archi-structure of différance, understood as originary spacing and irreducible rupture, "contains" Heideggerian difference: it encloses and accounts for it, taking it much further, tearing the metaphysical horizon even more decisively than ever before. But it seems to me that this structural approach to difference would not know how precisely to account for the specificity of the Heideggerian approach, irreducibly historial and temporal. Difference is inseparable, for Heidegger, from the first flowing forth of being, such as it emerged at the dawn of our history, in the Greek language. This is to say that it has originary status: very far from being an "originary

> structure" . . . , it inaugurates a history: the history of Occidental thought as the history of the retreat of being. (Zarader 1986, 143–44)

This objection, while it exhibits a perfunctory understanding of the Derridean concept as well as an arguable interpretation of Heidegger's texts (ontological difference marks all of *Dasein*, and there is *Dasein* before the history of being), nonetheless raises the true problematic of inaugurality's inscription (of the history of being) in différance, and also that of orthographic writing's status within the concept of archi-writing. And it raises the more general question of the effective technicity of all archivization, insofar as it manifests and differentiates itself from a connection to the future.

Heidegger is not thinking of writing when he cites the word *orthotēs* in Plato, and he would be derisive of wanting to "explain" the history of being's absolute inauguration through the technico-historic fact of writing. Contrarily, one must wonder if the very possibility of understanding truth-as-exactitude by the Greeks, and today by the Western world, is not concealed in this fact. To marginalize this question is to obfuscate the concepts of archi-*écriture* and différance.

Linear writing is what, for the first time, gives inscribed access to speech's passage (to its passing present*) just as* to its past (its present *as* past)—that is, access to the letter, as the very condition of the ideality Husserl envisages, and in the first place of geometric ideality: it is intelligibility "for all the world, indefinitely perdurable" (Derrida 1989a, x), which is itself the condition of the ability to reactivate meaning—as the condition of ideality. Yet such a "for all the world" intelligibility can be refuted by "the silence of prehistoric mysteries and hidden civilizations, the burial of lost intentions and guarded secrets, unreadable in lapidary inscription." Such an intelligibility marks an exactitude of the recording of signification already implied in Husserl's ideas through the privileged place he accords such documents in his initial phenomenological analyses. It is not just any writing that makes the communicability of science's idealized statements possible, but one that posits orthographically, that allows us "to examine at leisure," in Leibniz's words, what was thought as what was past, to engage in an auto-examination of thought as being in itself its own totally accessible past—which, however, does not mean "transparent": to think inscription is to access the differential play of lan-

guage's originary scripturality *as the very fact* of always being able to reaccess it identically. This fact inaugurates another différance.

Orthographic Intentionality

Intentionality is clearly at work in all writing, whether alphabetic or not, intentionality in which the transformation of the connection to the future that marks the opening of a History has its roots. Analysis of orthographic recording assumes that this intentionality was initially treated as a play of traces, economy of death, différance in archi-writing: the "deconstruction of phonocentrism."

This deconstruction rightly insists on the fact that

> the practice of science has . . . never ceased to contest the imperialism of the logos, for example in appealing, from the beginning and ever increasingly, to non-phonetic writing. (Derrida 1976 (1967(, 3)

What's more, mathematical recording's exactitude precedes alphabetic exactitude. The precision of Babylonian and Egyptian numeration, evolving into more amenable clocks, then into calendrical systems (*calendarité*(with far-reaching datability, make astronomy and arithmetic possible before their invention. In this sense, these nonwriting, numeric systems of inscription were already orthothetic. But to be more precise, such exactitude is still only what is inherent in numbers, which already contain the letter and new means of access to a past beyond calculation alone. Geometry requires that deduction be literalized, not only in exact calculation but in its demonstration. But this literalization could not occur without exact calculation. From this perspective, Chinese geometry would undoubtedly not yet be a geometry for Husserl, in that it is not demonstrative. Recognizing orthographic writing's specificity is not a matter of restoring a phono-logo-centric principle in it: the inscribed orthothesis's meaning is not to be found in some fidelity to the *phonē* as self-presence but in the literate/written[15] recording of the past as past, as the passage of the letter, or of speech through the letter—a certain mode of repeatability of a having-taken-place (if not a having-been) of the play of writing's repeatability.

These issues are comparable to those regarding the photograph and the cinema. No effect that Barthes describes in *Camera Lucida*, nothing of the narcissism at work in *Intervista*, would be possible if the certainty

of a restitution bringing together and conjugating past and present did not activate the photographic or cinematic gaze's intentionality. Similarly, no geometric, historical, or philosophical reading—not Euclid's *Elements* nor the *Histories* of "the Father of History" [Herodotus] nor the *Republic* that Heidegger reads without doubting that he is dealing with Plato's very thought—none of this would be possible without the certainty of achieving the exactitude of what took the place of thought: the intropathy unique to orthographic recording.

Just as there is a unique intentionality in the photographic *that-has-been* that is impossible in painting ("I call the 'photographic referent' . . . the *necessarily* real thing that had been placed before the lens," the intention of the photographic gaze posits, a priori, just such a necessity), alphabetic writing assumes a priori that in reading I have access, literally, in my thought, to the "flesh and bone" of thought—an apriority that exists neither in prehistoric mysteries nor in lapidary but unreadable inscriptions. Without such an intentional necessity's being inherent in reading, what Husserl calls communitization would be impossible. That written discourse also contains the essential possibility of being merely a pretense changes nothing.

This does not mean that pre-alphabetic writings are pictograms, nor that the pictogram is a "representation of a thing" like a painting, only that the technique of alphabetic recording prevents the reader from knowing the recording's context, from establishing the discourse's "letter": this "letter" is im-mediately there in all its self-sufficiency. But this also does not mean that photographic intentionality can be reduced to literal intentionality: analogic orthothesis is absolutely original. But these two cases are both matters of the orthothesis bringing a past and a present together in anticipation, as in the economy of death, as the *aprioric* certainty of a returning that-has-been. Both orthographic writing and the photograph are questions of time, significantly emanating from the photo, as Derrida points out in *Psyché*:

> In the technical modernity of its operation photographic instantaneousness is only the most striking metonymy of a much older instantaneousness. So much older that it is never a stranger to the possibility of *tekhnē* in general. (Derrida 1987, 299)
>
> This conjugation did not wait for the photograph to have an essential rapport with reproductive technics, to technics as such. (291)

It also certainly did not wait for the development of phonological alphabetic writing (orthographics). But just as the photograph gives us irreducible evidence that initiating all connections to the future in its particular originality, orthographic writing initiates a new combination of it.

Orthothesis as Reactivation's Condition of Possibility and Impossibility

The writer is affected in writing, encountering and reflecting on the writerly self. This auto-affect—which, since it unfolds through its own outside, is not one—is can be disseminated to and reactivated for all readers: it provides the moment to reactivate Husserl's "The Origin of Geometry."

For Husserl, ideality should be accessible at the surface or interface of a certain instrumentality. Diverging from Kant, "Husserlian intuition, as it concerns the ideal objects of mathematics, is absolutely constitutive and creative: the objects or objectivities that it intends did *not* exist before it" (Derrida 1989a, 40). Writing-as-recording's horizon determines this constitutive formation. "The Origin of Geometry"'s central theme is the first time, history's debut specifically as the history of geometry, which is also that of an instrumentality: geometry is not conceivable outside of a process of communitization made possible by a *technics of presentation* of the "already-there": no geometry without instrumental retentionality; without constitutive tertiary memory.[16]

This instrumentality opens the possibility of a *Rückfrage* [counterquestion]

> marked by the postal and epistolary reference or resonance of a communication from a distance. . . . From a received and already readable document, the possibility is offered me of asking again, and in return, about the primordial and final intention of what has been given me by tradition. (50)

This process of transmission "is analogous if not identical to that of the internal knowledge of time." The "historical present," "the cultural world," presents us with a structure that is also analogous to an existential analytics: the historical present "always reverts sooner or later to the totality of a past that lived it and that always appears in the general form of a projection."

On the one hand: *this* "cultural world" should be called the analysis of archeo-historic materiality according to the extant connections, in ancient Greece, among geometricians, geographers, philosophers, poets, doctors, historians, jurists, and other citizens, through the intermediary of orthographic technology. *On the other hand*, all of that should be framed as a matter of instrumentality and of "the time of invention," as a retentional-protentional structure of the "inventor"; that is, as a test of the technologically accessible past that is retention as ideal protention.

On one hand, then: for Marcel Detienne writing is a technology:

> In order to note, to record, to expand the limits of memory, is not the most insignificant act that of writing, which is quickly normalized? We have chosen another hypothesis: that writing, as a social practice, is a manner of thinking, a cognitive activity; that it engages intellectual activities. (Detienne et al. 1988, 10)
>
> Technology only makes its appearance through new means: school . . . ; lexicons, dictionaries, inventories. . . . These are the *new instruments* laid out in the graphic activity that can, under certain conditions, play an active role in a new organization of knowledge, can contribute to the advent of a new intellectual system, even—and this is the case for the Greeks—*to invent new objects*, or to pose problems that lead, in their turn, to advances in intelligence. (12)

To invent new objects—precisely Husserl's subject. But here it is not only a matter of mathematical idealities, "around 650 BCE, . . . writing came to the city: on a widespread basis and for essentially political ends" (17). Writing, having become an "operator of public information (*publicité*(, constituted the political arena. . . . Writing renders the fundamental rules of life of the city monumental, visible, and perfectly readable, so that each person is subjugated to its will." This is nothing less than the fixating of an identity: "One of the first inventions of Zaleucos [legislator of the ancient Locrians, supposedly the author of the first written Greek legal code] was to establish punishments, through the publication of laws. . . . Writing contains rigor and exactitude to the degree that it exercises . . . its public power" (17).

Orthographics, Communitization, Polis

Law itself, as such, and *isonomia*, first appeared within the context of communitizating through alphabetization, of the past's ortho-position in general—defined as technology's instrumental imposition as the *politēia*'s space and time. "Simultaneous with the law's first appearance in writing, the right to interpret the law was offered to each person." Yet this emergence is at the same time the appearance of all Western forms of knowledge: "Isonomia . . . is more than a political program; it inaugurates a new system for intellectual activity."

Communitization calls for the possibility of interpretation, of differentiation: exact identification instigates the sudden appearance of *a* difference and imposes infinite difference on any reading. The more memory is "straight" (identical), the more it is "in play" (the more it differs).[17] This differing identification is clearly in play at the moment of writing of any text: the writer inscribes the present at the moment that the past *is* present-ed in the specific form of an absolutely singular already-there. This *precisely* identified already-there provides the leisure, the latitude, to examine the initial writer's reasoning—for that writer. In terms of what takes place as the writer writes, it might be said that the writing to come, the next sentence, connects with past-present writing as a reading of the already-there—a reading, interpretation, and inscription (as new sentence) of différance concealed within the writing that is already-there.

"Euclid's *Elements* is an eternally axiomatic geometry. Period (*toute écrite*(." These transformations also bring about the possibility of Hippocratic medicine (i.e., the describability of symptoms through accumulated cases), of geography and its related cartography, and of the tragic drama such as we know it—through access to the tragic endurance of the forever-open question of truth.

In his *Introduction to Metaphysics*, Heidegger speaks of the simultaneous appearance within the city, as the site or "source" of history (*Geschichte*), of the gods, temples, priests, festivals, games, poets, thinkers (159); of the king, councils of elders, public assemblies; armies and navies. Such a simultaneity occurs because the polis begins to be thought as separate from time, which then appears in "multiple ways." But what is appropriately not lost on Heidegger is the recession of the king, the public's becoming profane, and *isonomia* as the horizon of this emergent multiple temporality. (Ontological) difference then appears as this very différance at the

very horizon of a "différante identity"'s dissemination. Thus, différance is *hermeneia*; and this *hermeneia* is the unstoppable advent of time as such. It is within just such a problematic of time that we must understand why and how "the setting down of laws in writing, in the Academy or under the jurisdiction of the Commonwealth, is the implementation of a practical politics, an intervention into social interaction, and a transformation of public life" (Detienne 1988, 39). Such praxis becomes available "to anyone who wishes to examine it." In the cities, "the practice of writing becomes equivalent to the exercise of political rights" in which "readers are no different from writers," and within such a principle of reciprocity, in which reading is essentially of value only (though only potentially) as a promised writing that can take place in a communitization (in Husserl's sense). Such a communitization, because it is a question of this equivalence—but also because such an equivalence can *not* be realized—results in a double status of reading: as passive, or active, synthesis (Husserl 1970 [1939], 353). Active reading is not simply mechanical re-comprehension, as of a theorem: it is the re-activation, the resumption or recovering, of originary opening[18]—after which an anticipatory process, producing a new articulation of geometry, a difference within the différance opened out through the instrument of geometry, can then occur. But passive re-comprehension assumes a technological reciprocity between sender and receiver: having passed beyond an originary opening, nonreactively, it remains nonetheless a comprehension, and as such it is only possible on condition that the receiver can understand the geometric terms only as geometric terminology. This is possible only to the degree to which the receiver has already, through the application of written language, acquired an analytic access to that language, for example to the very notion of what could be called a term. Any such acquisition presupposes an instrumental practice, the condition of *isonomia*—political as much as scientific, philosophical, literary, artistic, and so forth—which is at the same time the opening of *autonomia*: of citizenship itself.

Inherent within active comprehension, the possibility of passive re-comprehension indicates that ortho-graphy is not a condition of possibility for geometry: it is in fact also one of its conditions of impossibility, insofar as, in opening the possibility of re-activation, it simultaneously opens the possibility of forgetting (of the passive comprehension that believes it understands). This is, precisely, Epimetheus's de-fault.

Communitization is the historiality within the "history of being." Historiality means connection to the already-there as the past: as anticipation after the already-there, as facticity within being-toward-the-end in which "being-there *is* its past"—which is nonetheless not its own, a "previous" already-there that is absolutely factitious. Such anticipation then becomes the "history of being" when ontological difference is posited as a question—and as question *as such*. And yet such a differentiation is the opening of a crisis and of an impossible critique, out of a technological communitization of the already-there which inaugurate new instrumental conditions of access.

The hypotheses ventured forth here are familiar with the questions Paul Ricœur asks in volume 3 of *Temps et récit (Time and Narrative)*, which carefully analyzes Heideggerian temporality from the perspective of the archive and the trace, and in this sense of the aporia of the already-there, after a thorough investigation of Husserl's intimate understanding of time. However, for Ricœur, this is less a question of an originary aporia of time, found in its technicity, than of the cosmic connectors that are also "calendars," that are indeed all devices of datability, extendibility, and publicity. These connectors' technicity not being investigated as such, it is a certain intimacy of phenomenological time itself, as intimacy of the *who* and the *what*, that still escapes such an examination.

Tertiary Memory, the Condition of Impossibility of the Transcendence of Retentional Finitude, and the *Organon* of Time

Technics is a surface of différance, an instrumental mirror reflecting time as differentiation, differing, as deferred. Orthography is already a sort of clock to be seen, *après-coup*, in a theoretical and not a photographic light; it calls into question another kind of gaze than that of photography.

The insufficiency of Husserlian analysis is due to its limiting of the telecommunication process inherent in all geometry to the singular domain of the intersubjectivity of geometricians. Writing is necessary from the outset to authorize geometry, but this necessity of an orthothetic archivization can only occur *après-coup*, for the inventor's successors. Yet the time required for this test is the horizon of invention itself, and not

merely of its repetition; rather, the repetition (of the already-there as what passes/is past) is the invention. If it is true that "tradition sedimentation in the communal world will have the function of going beyond the retentional finitude of individual consciousness" (Derrida 1989a (1962(, 57), transcendence of this retentional finitude is necessarily within the moment of invention; it is this moment par excellence. "Before being the ideality of an identical object for other subjects, its meaning alters at different moments for the same subject"; intersubjectivity is "first of all, in a certain fashion, the empirical non-connection of the self with itself, of my eternal present with other presents as such; that is, as other and as present (as past presents)" (58); tertiary memory always already inhabits my secondary memories as well as my primary memories and my present "itself," and the orthographic *already-there* of "myself" can only be missing, since this is the essential mark of all already-there's as prosthetics: as failure—and its exigency, its "*il faut*." This can be understood, and most strongly, in identity-fixation. Orthography is but one age of Epimetheus's de-fault, one way the eagle has of eating the liver and for it to resist. But this particular age figures forth the strategies of epimēthean intensification whose conceptualization is the task of philosophy.

If it is true that "being-in-perpetuity and enduring presence" are impossible in oral communication alone—before being determined as such, en-registered in order to give access to the ideality that is at every instant originarily capable of being re-activated—the already-there inhabits invention itself. There is no "reason" nor "idea" without *organon*: *eidos* and *logos* are always already techno-logies. This *technologos* is the *hupokeimenon* (the ground) of ideality and of science in general—and more profoundly, of time as such.

The Protohistoric Transition

In order to give ortho-graphy, and all orthothetic phenomena, their proper content, a phenomenography (to remember an expression from Patrice Loraux) must link itself to the question of context that phonologization alone posits. orthographic textuality, through its identificatory operation (to establish the identity of a letter of a/the text), gives rise to a paradox of différant*e* identification within the contextualization of the text. This is the question of the here-and-now, of datability, and of the idiom.

The question of the inscription of the history of being's inaugurality, in différance, also necessitates that one define what is one is speaking about under the name of linear phonologic writing, why it is necessary to speak of orthography before phonography, and how metaphysics can only construct a privileging of the *phonē* by obliterating the orthothesis's originality: in order to accomplish that we must turn back to the transition from the cuneiform to the alphabetic. This is a decisive new moment of a passage, a decision. *Who* or *what* takes this "decision"? The history of the supplement and its "logic" are those of always-original passages that nonetheless never have simple origins. In passing back through this question of the past, the already-there as tertiary memory, we pass from the question of a transition from Zinjanthropos to Neanderthal, investigated in *Technics and Time, I*, to another question: from the prehistoric to the historic. In the following chapters, we shall investigate the hypothesis that a new passage, a new transition, is occurring today.

But to what "logic of the supplement," what mirror stage, what age of reflexivity, of historiality, does the transition from the prehistoric correspond? How is it possible to pass from the ideogrammatic to the orthographic, and what does that imply? How is one to understand the causes and effects of the orthographic?

The transition to the orthographic coincides with an access to full rationality. Protohistory is also a transition through proto-rationality.

As for the question of knowing *who* or *what* takes or makes the decision, how it is made, and also, finally, what it consists of, Jean Bottéro, studying Mesopotamian proto-rationality (Bottéro 1992 [1987]), offers no other element than Sumerian "genius" and Semitic "cunning," thus planting his "answer" on the side of the *who*.

Geniuses and Miracles

The theme of Sumerian genius and Semitic cunning are seminal in showing that Greek rationality is not a product of some miraculous origin—a paradoxical thesis: how can one distinguish between geniuses and miracles?

> When we want to trace our genealogy back in order to return to the origins of our own heritage, . . . an age-old tradition that is difficult to uproot stops us on our way by confounding us with two 'miracles' . . . Western civilization

> derives directly from Christianity. And Christianity is at the confluence of a double cultural stream: the Bible on the one hand, and Hellenism on the other. (Bottéro 1992 (1987(27)
>
> Assyriologists have the material in hand to defuse this imaginary double postulate, that grants the status of absolute beginnings to what is nothing but a stage in an evolution. (28)

Returning once again to the question of passage, of transition, will here require us to deflate the miracle. And in doing so, the true Assyriologist describes the orthothetic condition of history. "Only written documents can give us an assured knowledge of our past that is precise, detailed, and analytical. Prehistorians and archaeologists as such can only see a hazy and uncertain outline of the past. This is why history begins at Sumer" (28). It begins there, yet not entirely: there is the matter of a prehistory, which will only really begin when writing, as a simple memory-aid, becomes entirely separate, a wholly independent memory. The transition from proto-history to history is the passage from memory-aid to writing. The challenge is knowing what this totality of writing-as-memory, this plenitude of history, actually is, and if it is even possible to speak of a writing as simple memory-aid.

It is important to continue to pay close attention to what according to Bottéro enhances the new possibilities of a history of the supplement. His suggestion, above, should be compared with the cited passage in "The Origin of Geometry":

> The objectivity of the ideal structure has not yet been fully constituted through such actual transferring of what has been originally produced in one to others who originally reproduce it. What is lacking is the persisting existence of the "ideal objects" even during periods in which the inventor and his fellows are no longer wakefully so related or even are no longer alive. What is lacking is their continuing-to-be even when no one has [consciously] realized them in self-evidence.
>
> The important function of written, documenting linguistic expression is that it makes communications possible without immediate or mediate personal address; it is, so to speak, communication become virtual. (Husserl 1970 [1939], 360–61)

Husserl conceives of writing as the necessary horizon for the appearance of a science of geometry. But it is a question of the emergence of the writing we are here calling "orthothetic." What emerges in Sumeria is not yet

the history of geometry; nor is it yet science, insofar as it would essentially be the science of idealities. What, then, is the factor common to writing's two necessities: *for* geometry, *for* history; and how did the Sumerians concern themselves with them?

Before the Greeks, there would (not) have been (only) technics, measuring, land surveying; yet with and after the Greeks, this technical knowledge would become or produce theory—science, par excellence, as geometry. Bottéro understands this as a question of a stereotype. He is less interested in claiming a technical origin for theory than in bringing to light the proto-dissemination of this technics as writing. Such a "proto-moment," however, has nothing to do with the one in which Husserl is interested, the moment of "proto-geometry."

A proto-theory would have to be generated from before the Greeks, during the first diffusion of writing, if not with or even through it—but at what moment of this diffusion: when it became more than a simple memory-aid—or perhaps as simple memory-aid? And this is when things become complicated. When does writing become actual writing? Bottéro contradicts himself from the start in evoking his famous lists, which seem to be evidence, for him, of a simple "memory-aid" writing as a mnemotechnique, rather than of a writing in a stricter sense; nonetheless he sees in these aids, these auxiliaries, one aspect that transforms memory—the opening to what he calls proto-rational possibilities:

> Among the oldest cuneiform tablets, ones that are still almost indecipherable as they are so close to the simple mnemonic device that the script originally was, we can already find some Lists . . . [which] had the ultimate purpose of arranging objects, of drawing up inventories of the numerous sectors of the actual world that were not only as complete as possible but that were, especially, methodological lists. (Bottéro 1992 (1987(, 29–30)

What does Bottéro mean by "purpose" here? Does it remain exterior to and independent of the "mnemonic device"? Referring to [the work of] Jack Goody, Bottéro claims that this proto-rational moment cannot be isolated in writing, thus linking this proto-writing back to the stage of the memory-aid, of the negligible supplement, which plays no role other than being instrumental in moving toward writing's invention: Bottéro asserts that "pictographic" writing is not actual, true writing, since a true writing is not a simple memory-aid, and thus that before the advent of true writing, the pictograph is merely a memory-aid, since it was not principally

writing; it would necessarily have been an engagement with a writing devoid of reasoning: proto-rationality would have had to occur before (and as a condition of) any "true" writing. In other words, true writing would have been produced by reasoning, by the Mesopotamians' "genius" owing nothing to true writing, since they were in advance of writing. But then they also would have owed nothing to a memory-aid, simply because their writing would have been nothing other than a memory-aid. Writing, bad or good, false or true, which could never have been self-producing, will in the end thus always remain basically a simple memory-aid: "essence" will have occurred elsewhere.

In his explication of the advent of proto-rationality, Bottéro shows no hesitation in speaking of a Mesopotamian scientificity of casuists, employing an extremely naïve concept of science—one that is completely inadmissible from a Husserlian perspective.

However, and this is what is of interest to us here, Bottéro throws into high relief the consequences of the recording of a succession of singular cases: the events, the gaps or differences, within various programs, that as recorded initiate the process of anticipation as evoked in Karl August Wittfogel regarding Nile flooding. In the Mesopotamian case, the process appears in and as the recording of variations that can be used simultaneously for calculation (i.e., prediction) and for interpretation:

> The "writing of the gods" consisted of the things themselves that they produced when making the world function. When things conformed to routine, as happened most frequently and most regularly, their message was also "normal" and undetermined, i.e. the signs announced a decision conforming to the routine. In other words, they represented a special non-decision, a purpose deprived of interest, as things did not do anything but follow their known and expected course. But when the gods produced either a creation that did not conform to its model or a singular event that was unexpected and eccentric, they expressed with it their will to announce an equally unusual *destiny*. One could know the destiny if one knew how to decipher it through the presentation of the abnormal phenomenon in question—just as one deciphered pictograms and ideograms of the script. (32–33)

Bottéro thus highlights—for us if not for himself—the already-there as pros-thesis subjected to transformations orienting it toward an orthothetic method to which he points—for us—as being writing itself, con-

stitutive and dynamic because of these transformations—for us—of the entire process of anticipation.

> It would be wrong to neglect these very precious documents that allow us to take hold of the "birth" and the ancient progress of science and of the scientific spirit, so to speak. (39)

Birth, Conception, Science

Two objections arise here:

—In what "surprises" him, Bottéro is not surprised or astonished by the dynamic role of writing—by the re-constitution of time that he finds at work there, whose names are proto-rationality and rationality.

—A definition of rationality through the ideality of its object does not seem to have occurred to Bottéro the Assyriologist, as if his legitimate project of disputing the immaculate conception of the Greek Moment condemned him to be profoundly unaware of the originality of that moment:

> Only a narrow, superficial, univocal, and biased viewpoint can obscure the evidence for us. This evidence is given to us by the careful and detailed examination of the cuneiform archives and shows that these ancient scholars, from the first half of the second millennium or somewhat later on, had discovered abstract thought, analysis, deduction, the research and the establishment of principles and of laws, in their own way and according to their rationality and their world vision. In short, they had discovered the essentials of the methods and the spirit of science. . . . This is not to diminish the merits of the Greeks but to put forth the truths of history, i.e. the facts.
>
> . . . history as well as life knows only developments, and the absolute origins escape them. There is always something earlier! (40)

Certainly. But the question of differentiating *before* from *after* remains. Is there a connection here, with the Mesopotamians, to something like the scientific spirit? It cannot immediately be either excluded nor accepted. Such a connection would be difficult to exclude; one might even want here to question the Husserlian partition, as well as any conception of the ideal relying on an absolute beginning. Our entire project is headed in this direction, though with one proviso: that the "epigenetic" dynamic of "the birth of science" be recognized as a dynamic of supplementarity (of epiphylogenesis). But this is not at all what Bottéro envisages: namely,

that there was a Mesopotamian genius, older, *more originary*, than the genius "owed to the Greeks." This truly classic act had already been criticized by Leroi-Gourhan, who in the end would do it himself; an original genius can be only temporally displaced, either later (as Leroi-Gourhan would do) or earlier (as Bottéro does here).

The case being made here is that lists, memory-aids, are only testimony to a birth. If there is a birth, lists are a constitutive element of it. What is in question is whether Bottéro provides evidence of the birth of science—but prefers to speak more cautiously of "proto-rationality."

Clearly, no true writing could have existed when "science appeared," only memory-aids. And when true writing did appear, nothing actually occurred, since the essential had already occurred, already taken place before: Mesopotamian "genius" and "science" naturally led to true writing, writing did not develop as science; this is due to what Bottéro's understanding of science posits as the metaphysics of an ordinary empiricism. This aporia is very real—Husserl had already found himself confronted by it: never questioning that "history, like life, knows only developments; beginnings as such escape it: there is always something before," he was struggling with the same problem when, working to trace the possibility of geometry's origins, he writes:

> But when we note that mathematics has the manner of being of a lively forward movement from acquisitions as premises to new acquisitions, in whose ontic meaning that of the premises is included (the process continuing in this manner), then it is clear that the total meaning of geometry (as a developed science, as in the case of every science) could not have been present as a project and then as mobile fulfillment at the beginning. A more primitive formation of meaning necessarily went before it as a preliminary stage, undoubtedly in such a way that it appeared for the first time in the self-evidence of successful realization. (Husserl 1970 [1939], 356)

Derrida's comment on this passage:

> Whatever *in fact* the first produced or discovered geometrical idealities were, it is *a priori* necessary that they followed from a sort of non-geometry, that they sprang from the soil of pre-geometrical experience. Phenomenology of the experience is possible thanks to a reduction and to an appropriate desedimentation.
>
> . . . By a necessity which is no less than an accidental and exterior fate, I must start with ready-made geometry, such as it is now in circulation and

> which I can always phenomenologically read, in order to go back through it and question the sense of its origin. Thus, both thanks to and despite the sedimentations, I can restore history to its traditional diaphaneity. Husserl here speaks of *Rückfrage*, . . . from the received and *already* readable *document*, the possibility is offered me of asking again, and *in return*, about the primordial and final intention of what has been given me by tradition. (Derrida 1989a [1962], 50)

The issue of the already-there, in its positive pros-theticity, is posed here more clearly than anywhere else, such that it catalyzes the successful distillation of the statement's context. Bottéro will pursue and arrive at his analysis through an interrogation of the sender and receiver of a statement's context.

The question of a beginning that worries Bottéro is thus not entirely foreign to Husserlian thought. Present throughout "The Origin of Geometry," it problematizes the distinction between the empirical and the transcendental. From the outset, Husserl's phenomenology questions the empirical genesis of science's very possibility; but equally from the outset, it excludes all psychologism, all historicism, all empiricism, pervaded as it is by the ideal nature of the mathēma and consequently by the transcendental imperative that rejects a simple genetics, but at the same time opposes Kant's formal transcendental. It is clearly caught in an endless dilemma that could only be displaced in the most ordinary layerings without ever being reduced. Here we can see the possibility of escaping such a dilemma through the introduction of a singular "epigenetics"—a perspective "The Origin of Geometry" opens for us by introducing the question of writing.

In any event, Bottéro never foresaw this dilemma. Since for him it is a question of birth (and not invention), if one wished to thoroughly engage the vocabulary of *generation*, it would be necessary to say that along with those "literati of the second millennium," one was present at the *conception* of the Occident rather than at its *birth*. *Its birth would be that of the literati*. This is not to say that before the invention of writing (*avant la lettre*(there were only memory-aids and therefore no writing.

The Need for Aiding Memory

The fourth chapter of Bottéro's *Mesopotamia*, "A Century of Assyriology," acts as an introduction to the sixth chapter, "From Memory-Aid to

Writing." In effect, it invites comparison with paragraph 73 of *Being and Time*; this passage is taken from it:

> Without written words that are precise and detailed, he will never know the name of the man or of the god that the statue represented, the role he played in his day, what moment in history, what point of view, he represented to his contemporaries; nor even on what basis the interchange was made that placed the material in the artist's hands. He will never know how the artist lived and what place he and his art had in the society of the time. All this they could explain to us, if their voices had not been silenced for so many centuries. (Bottéro 1995 (1987(, 43)

The first occurrence of *this particular* possibility of re-accessing a past and of reconstituting it is what appears to Occidental eyes as that miracle called Greece. "Without a written discourse" the already-there of the archaeologist, the philologist, the mathematician, the scientist, and particularly the philosopher, and still more particularly the phenomenological philosopher—and through all of them a shared *Dasein*—would *literally* not be available, would in fact be literally and literarily inaccessible.

"From Memory-Aid to Writing" describes a three-stage evolution: pictographics, phoneticism, writing as such. These three stages must be kept completely separate. And yet it is clear that this can never truly achieved: phoneticism is always already in pictographics and the pictogram is never only a pictogram; when writing proper appears, it is never quite what it is, "properly speaking." And this is not merely a critique of the pictogram, which will obviously have had an impact on the entire structure; the contradictions just pointed out in the previous paragraph resulted directly from it. On the other hand, Bottéro's *Mesopotamia* focuses on a point of rupture that requires analysis. What do we mean here by *writing*?

> If words have a *precise* meaning (something that seems to be forgotten or denied more and more these days, at least in practice, if not openly), to have script it does not suffice that there is a message. . . . It is necessary to have a *system* of transmitting and recording *all messages*. In other words, one needs an organized and regulated corpus of signs or of symbols, by means of which their users can materialize and record clearly *all* that they think and feel, or want to express. (74)

True writing is capable of reconstituting a significant experience integrally, exactly, and totally. Where this is not the case, proper writing is absent.

Bottéro sees writing as identical to the recording, the en-registering referred to here as the orthothetic. This totalizing identification prevents Bottéro from understanding the constitutive role of pre-orthothetic writing as writing-in-general.

Assyriologists have generally thought that the tablets from the end of the fourth millennium were a true writing; Bottéro claims that they are still part of the archaic stage of pictograms and are thus no more than memory-aids:

> Let us take the case of a tablet where the character that follows the number of unity is the diagram of the pubic triangle which we know to designate "woman." This woman, is she the direct or indirect object, or the subject, of the operation? Does the figure "one" refer to her or to the product that is transferred? In any case, the tablet does not tell us everything with only these two signs. It supposes that we know both the quality of what it does not mention (direct or indirect object, or subject, of the operation) and the sense of the registered transfer. This is an example of the elementary insoluble problems that nearly all of these archaic tablets present to us. The archaic tablets are thus illegible to us. Why?
>
> Because the signs in question are *pictograms*, still from a rudimentary stage of writing. (75–76)

Pictographic tablets are unreadable because they are still only the immediate derivatives of "representations of the plastic arts": a "writing of things, objects," they are not a writing. (J. G. Février, being more cautious, speaks of the writing of sentences).[19] Bottéro follows with a description of the pictogram and its inevitable slippage out of simple representation (this is, correctly, because there is always a certain slippage or drift that Derrida refuses even the name of pictogram):

> Just as in the plastic arts a drawing may suggest much more than it represents (a tree, the forest; a hand, all human labor), a pictogram in this type of writing system not only can evoke other things than those "contained" in the sign that is used, but such a broadening is necessary. To the extent that one has available only sufficiently precise and particularized sketches of objects to express the thought, in principle one needs as many signs as the concrete realities one knows and wants to express . . . ; in theory one would need thousands of signs, and in that case the knowledge, and the use, of such a writing system would be beyond, I would not say human capabilities, but the practical usage for which it is needed.

> In order to reasonably diminished the number of pictograms, . . . one has to establish certain procedures, certain tricks, or life the pictograms out of the uses of the plastic arts. (76; emphasis added)

If this pictographics is still not a true writing but only a memory-aid, "the pictograph plunging its roots into the practices and conventions of visual art"; there is nonetheless still a difference between them that is "radical and sufficient enough to have created "a change of nature" from art to writing. The difference is a deliberate and manifest desire to signify at the same time the more generalized and the more distinct, and thus it is a true systematization" (77). Then, repeating an archi-classical move, Bottéro reaffirms that here it is a question of a writing of things: "Only language, with its words, is capable of totally rendering the way in which we see reality. . . . But the pictographics is not a writing in words" (77). This writing-as-painting, pictographics, is not writing-as-writing. It is a strange reasoning and an unacceptable proposition contradicting what has preceded it: in fact, it is already a matter of "semes": the female sex slave, represented by a pubic triangle (pointing down) and a triangle standing for a mountain (pointing up), is not "a woman plus a mountain," and the mountain is not a mountain because it is the foreigner: the pubic triangle is not the pubic triangle because it is femininity in general; and so on. These objections are related to those with which I opposed Leroi-Gourhan's "concrete language" in *The Fault of Epimetheus*.

Starting with this argument, Bottéro finally lays out his thesis and details a sense of the memory-aid to which we must react:

> Precisely because pictography is imperfect and rudimentary on the level of meaning and incapable of reconstructing the completeness of a concrete situation, of depicting it, or of communicating it, but is able only to extract from it the material objects and the substantial elements, it can absolutely not play the role of teacher or informer vis-à-vis the "reader." It cannot reveal to him in a precise fashion a truth that he did not know, but only remind him of an event, or a string of events the details of which he was already informed of before. . . .
>
> *Walk mountain purchase bread woman* is nothing but a quintessential diagram, of which the only unquestionable elements are that it deals with walking, with a mountain, with purchasing, with bread, and with a woman. But *who* walks, and *who* purchases? And *when*? And *how many* realities are at work? Is the mountain the *starting point* or the *goal* of the walk? Is the woman, like the bread, the *object* of the purchase, or is she its *destination*, or its *source*?

> On the other hand, if I had the experience during a vacation in the mountains . . . these five words should suffice to make me remember all of it.
>
> This is why and how in its first pictographic stage, pictography, cuneiform script was not and could not have been more than a *mnemonic device*. (78–79)

Bottéro's effort is to demonstrate that the cuneiform is not the orthographic, and he is correct. And yet the issue at hand is knowing what a memory-aid is, and if orthothetic writing is not itself in its essence a memory-aid, that is, a singular prosthetic configuration of the already-there, whose "assistance" will have engendered an extremely complex series of effects: thus the recording of geometric thought conditions geometric invention at the very moment of its emergence.

Context

The process of phoneticization is operated through the "rebus": phoneticism

> was at first nothing but a new procedure intended to bring a remedy to the semantic restrictions which are inseparable from pictography. Homophony, which is common in the Sumerian language, could have given the idea of using a pictogram to designate not only the object that it represented directly or indirectly, but also another object whose name was phonetically identical or similar.
>
> . . . Thus, the sign is no longer a pictogram or an ideogram. It no longer "depicts" or represents anything. It is a *phonogram*: it evokes and records a phoneme. The graphic system is no longer a script of *things* but a script of *words*; it no longer transmits only thought but also speech and language. (Bottéro 1995 (1987(, 81)

One would be within one's rights to ask what can signify a thought that would not immediately be word and language; that might signify something but that probably does not signify the a-categorical ante-predictivity—without "hollow words," those attributes and complements (who, where, when, how much, etc.) that bring to mind the categories of the *Organon* in which Aristotle correctly characterizes thought as understanding—and at which Bottéro aims here.

But above all, it is not a question of speaking of the phonogram: it is rather a question of an ortho-gram, of orthography.

> And as such, even though one needs henceforth to know the language of the person who has written something in order to understand the writing, on the other hand what is written is able to indicate everything that is expressed in the spoken language, and *as* it is expressed there. It is thus no longer reserved to commemorate, to recall, it now informs and instructs. It is not a simple "mnemonic device" anymore but a script in the full and proper sense of the word. (81)

Because writing has moved beyond simple commemoration or recall, writing that aided memory will have become a factor of knowledge—an agent rather than a simple assistant. But as we have seen, that knowledge occurs before the moment of (Greek) orthographic writing, in a Mesopotamian proto-rationality that owed nothing to writing since in fact, despite appearances, writing did not yet exist; this true writing will have provided nothing new—if it will not allow the historian access to the past. As if nothing new occurred there, for the passing present. As if nothing new occurred during this passage. But as orthographics, writing is the actual recording of a language that was always already "writing": a question of a new way of being for a writing that *is* language. Becoming orthographically accessible in its past and its passage, this language is no longer the same, if language *is* only the connection that maintains those who speak it. Language's literization formalizes it analytically "behind the back" of those who speak and write it, like a silent movement of *tekhnē*. This *ana-lusis* is an occluded modification of language's diachrony. There is no "inventor" of alphabetic language who decided to reformulate the modalities of recording, who could intervene in it and knew how to: there is a sub-jacent movement of exteriorization, of invention of the supports for the already-there that already belongs to the dynamism of the *tekhnē*, in which it is tempting to see a quasi-*hupokeimenon prōton*.

Literateness, as inscription, inaugurates a new age of différance—and of ontological difference: the history of being that starts here is the history of the letter. How should this initiation be appropriately characterized? Through the question of context—of identity and difference. To state that memory-aid writing allows for nothing other than recall is to misunderstand that the conservation of memory is always already its elaboration. However, this is also to pose the problem of a certain specificity within orthographic différance. "Writing itself" is what is readable to us, provided that we have the code by which it was recorded; this is orthothetic recording. Pictographic tablets remain unreadable to us even when

we have the code, since one must also know of their context. Without it, all signification escapes. In order to have clear access to a pictographic inscription's signification, one must have lived the event it purports to record.

The enigma is thus the possibility of reading a "novelty," a piece of information not already known: concealed in an already-there that is not mine—in true writing one is able to access completely an already-there *that I did not live*—is a *not-yet-there*, a promise: that the improbable exists within the program. Such a possibility achieves new and full effectiveness in the establishment of a new relationship of statements to their context, engendered by their orthographic recording.

Bottéro juxtaposes cuneiform enregistering and written recording in their respective relationships to context, and through the effects produced there for the respective recipients. For pre-alphabetic writings, "it is the context that permits the reader to choose the right reading: this is why in our foreign and removed eye a cuneiform text can never be simply read, it has to be deciphered" (86). Cuneiform, though progressively phoneticized, never eliminates ideograms completely, and even in its latest vestiges,

> not only does a text always have to be deciphered, but to fulfill that task in the best fashion it is indispensable to know well both the language and the general context of the documents that one is studying. Hence comes the extreme difficulty and the uncertainties of the translation of entirely new pieces, which are without duplicates and without parallels. In order to understand well one has to *know already* . . . (86)

With alphabetic writing, the contextual opacity of declaration has been eliminated.

> Around the fifteenth century BCE (at the latest?) the alphabet was established in Phoenicia, perhaps at first under the more or less evident influence of the cuneiform script. This ultimate perfection, by which the script was reduced to the smallest possible number of univocal signs that correspond exactly to the fundamental (and the virtual) sounds of the language, refrained from reserving characters to indicate anything but *consonants*, therefore leaving to the reader, who is supposed to know the language and its mechanism, to supply the vowels. (86)

A contextual opacity always remained in the articulating of cuneiform. Its recorded enunciation was not in itself sufficient for the restoration of a full signification. This opacity was eliminated with the advent of orthographics, first in Phoenician, though the elimination remained only partial since the linguistic code had to be understood in order for its phonematic "flesh" to be restored, and than finally in Greek, in which the elimination was fully accomplished. This is the progressive, wrenching re-contextualizing process that Derrida posited as the structural trait of all writing:

> My "written communication" must, if you will, remain legible despite the absolute disappearance of every determined addressee in general for it to function as writing, that is, for it to be legible. It must be repeatable—iterable—in the absolute absence of the addressee or of the empirically determinable set of addressees. This iterability . . . structures the mark of writing itself, and does so moreover for no matter what type of writing (pictographic, hieroglyphic, ideographic, phonetic, alphabetic, to use the old categories). (Derrida 1989a (1962(315)

All writing tends toward the orthographic—chiefly to orthography and literateness—so there will always have been effects of this wrenching contextual development in all writing, since "a writing not structurally legible—iterable—beyond the death of the addressee would not be writing" (315). It is the consequence of this structural iterability of all writing that "a written sign carries with it a force of breaking with its context, that is, the set of presences which organize the moment of its inscription. This force of breaking is not an accidental predicate, but the very structure of the written" (317). It remains that there is an reification of the readable, determined by writing that gives rise to the original specifications of supplementarity. Yet this reification of contextualized tearing out can only be accomplished through ortho-graphy. This *tēlos,* the saturation point, is also the point of rupture: a reversal takes place there, a new play of text and the context of its reading emerges at that point as the paradox of différant identity resulting from the tear in the context of enunciation, a paradoxical opacity of exposition in the effects of reading's (re)contextualization; it is as if although the indecision with regard to any reading's signification is reduced, the variability of its meaning has been proportionately increased, freeing up entirely new interpretive possibilities. This contextual wrenching, once accomplished, reveals *for itself* the play of

textuality as such, emerging from any reading of the book, with a set of infinite contextual possibilities. What then offers itself for simultaneously original and radical discovery, if it is true that a context for reading can never be repeated, is an in-terminability of reading for any and every text; this is the very law of the here and now whose conjunction never occurs only once, all context being just such a conjunction. This effect is without doubt already at play in all writing. But this law is characteristic of an orthographic writing that renders experience inevitable, that purifies its reification and simultaneously engenders a reversal in the connections between and among statements that reveals the reader's very textuality—the reader's *who*. This *who* acquires its own textuality, its différance, and thus a certain possibility of the *what*.

The Principle of Orthographics and the History of Being

In this view, textuality presents itself as a deferred time—an *epimētheia*. Anticipation, as *epimētheia*, is an essentially deferred time in that it puts being into play toward the end, toward death, which is différance. If inscribed textuality opens up the *who* (*Dasein*) to its historiality in the singular mode of "the history of being"—as *citizenship*—, it is because the structure of the decontextualization endemic to writing in general and achieved fully in orthographic writing stages this différance in the deferred time of what Derrida calls *dissemination*—which consequently affects all enunciation, all productions of meaning and signification, whether linguistic or not. This dissemination can only reach fullness, and contradict Plato, when writing produces a "reality-effect" comparable to that of a photograph. To a certain degree, I cannot read a text signed by Plato in a comparable way, so to speak (all orthographic writing calls for a signature, a proper name, by default), without including in my reading's *noēma* that it is the text *of* Plato, emanating from the textuality of his language, of *his* language (his already-there); that he wrote it, and that it was in writing it that he discovered this textuality—and the *logos*—of language as such traversing *his* language. No cuneiform tablet could produce this effect for me with such purity, a purity of intention that is the very principle of orthographics.

The textual experience arises from the principle of identity as marked by différance. All orthothetics gives rise to différant identification(s), and

there are non-literal (non-written)—analogic or numeric—orthotheses, which affect any capacity for synthesis.

The *who* discovers its textuality by putting it to the test of orthographic, différant writing (literal synthesis) because, in losing the sense of a text's identity while reading it and repeating it in different contexts, the reader's actual identity is thrown into crisis. A reading can be contextual in at least two ways: in space and in time. A text can produce two different readings, either by two people at the same time and in two different places, or by a single person in two places at two different times. All readers who regularly reread their favorite texts find their textuality to be infinitely interpretable, a veritable generator of differences. To discover that a single text varies and drifts indefinitely in the dissemination of which all contextualization consists is to be caught up in a process of irreducible différance to such an extent that the here-and-now, space and time, are themselves irreducible, and there the reader also discovers textual being itself, as a texture of accounts from that reader's past, already-there, accounts that have been lived as inherited and that must be endlessly (re-)interpreted. This discovery challenges the pre-texts of the very texts offered up for reading. Textual expression catalyzes the reader's inherent textuality in the same way that the sensible catalyzes meaning in Aristotle. The paradox here consists of the fact that the text produces all the more difference, as active disruption of all contextuality, insofar as this identification succeeds; such difference is effectively irreducible in that there can be no doubt about the text's identity from the moment that there can be no doubt about the (re-)production of a difference in its repeated readings. This enigma is indissolubly that of the *who* and the *what*—of the *who* in its active experience of the *what*, and of the *what for* a *who*.

It is this moment that constitutes citizenship: the citizen is one who decides on the textualized law's meaning, and who in the same gesture self-affirms as this particular citizen, exposing the to-come of that particularity relative to the community as endlessly altering itself and thus affirming itself as différant from all others—including that reader in any past guise.

And this is why the orthographic textualization of what occurred in the past no longer determines this past in the one for whom it *is* the past: this past, on the contrary, is seen to be more and more unspecified although, just as with the end, with death, more certain. The precise text's contextualization constitutively intensifies its improbability. In other words, to

finish here with the question of the prostheticity of the already-there according to Heidegger, confusing the now and the past's calculation and durable fixation with the end's determination, having misunderstood the grounding nature of the undetermined's durability, as pro-gramme produces the improbable and inscription's determinability through its exact determination (that is, as decontextualized), which then produces or gives the undetermined as the improbability of the gramm*ē*'s and the programme's meaning in its a priori *always*-possibl*e*, a posteriori *never* possible reiterations: this is the play of the not-yet, the anticipation inherent in the already-there, and brought about by it. If these improbabilities and indeterminabilities can also be in play in pre-alphabetic writing, they do not appear in this paradoxical guise in which identity (re)produces difference and reciprocally: they can always be attributed to enunciation's contextual opacity—to identification's insufficiency—, and not to the contextuality of any statement's opacity nor to identification and as its paradox which is only that of the reader's (the *who's*) textuality, as irrevocably leading to the already-there, the *what*. It is always possible to avoid having to attribute improbabilities and indeterminacies to textuality itself; the effects of différance are never pure since, enunciation's decontextualization never having been purely distilled, recontextualization of any reading cannot as such be tested, and thus cannot be proven as such.

"Truth," *a-lētheia*, is orthothetic. This does not only mean exactitude but also the incertitude that exactitude opens up. The resultant doubt does not come from a vague inclination of heart (one cannot decide to doubt; doubt is not something on which a decision can be made, or rather that could only be doubt's simulation—truly a difficult question), but from a techno-logical doubting.

Critical thought (or reflection) is a fundamental product of the paradoxical double dimension of memory that appears with linear writing. The process of textual identifications allows as much for the identification of their rules of production in terms of grammar—as an operation of understanding—as for the endurance of their most fundamental irregularity, whose interpretability is the sign—and is thus a test for reason.

Identification-in-différance presupposes the reproducibility of whatever has been identified: only what can be reproduced identically has actually been identified. It would be incorrect to say that identification enables reproduction since it is equally true that reproduction enables identification. It follows that identification is the reproducibility of the identified.

Difference takes place at the moment of repetition in reproduction. The activity of memory in general, even before it can be specified as a literate, reflective activity, always calls for the possibility of repetition. But the essential element in this process is repetition in a différant identity, whatever its form and the mode of reproducibility from which it emanates and which opens up a critical reflectivity—whether literate or not. To this extent, thought in general proceeds from repetition, and critical thought from formal and cumulative repetition; that is, from rereading in the broadest sense of "reading."

Today

Today, epokhal redoubling

John M. Dodds has shown how the expansion of orthographic writing, suspending the authority of traditional ethnic programs in classical Greece, provoked a crisis of civilization from which the conflict between sophistry and philosophy would emerge, and along with it the Occident in its dominant form. What is evident in this crisis is nothing less than a clear instance of the advance of technology on "culture," always (re) constituted in its epimēthean delay, and whose differed/deferred time of reading is the effect of reappropriation as contextual différance. Historiality can only be initiated as the *epokhal* redoubling of the already-there's techno-logical suspension, which is also the only means of access to the already-there.

Deferred time, essential to orthothetic contextuality as constituted by orthography, furnishes what the Occident will call "knowledge": a declaration of knowledge (always literally constituted) is the promise of a dissemination of infinite différance, and from this perspective its value is infinite. A text belongs to knowledge to the degree (proportionate and disproportionate) that there can be no end-point to its (re-)reading. The after-effect of this textual "belonging" to knowledge consists of its being always already between constituted programmatic, *epokhal* stabilities, and as what always returns to haunt them (to topple them in order to reconstitute them). If *tekhnē* suspends the programs in force, then knowledge also returns to suspend all stable effects, *tekhnē*'s "repercussions," by redoubling them. This is *epokhal redoubling*.

No longer a memory-aid, writing has become memory itself. But in its broadest sense it had always been that. Thus it is not a question of occluding the Greeks' irreducible originality by conflating them with those Mesopotamian ancestors who had already anticipated scientificity, but rather of asserting the techno-logical tenor of originary, nascent scientificity—as effectively conceived not by the Mesopotamians but by the work of mondo-historial prostheticity through which they pass on (and then disappear), that is, by the work of writing's being formed, of *tekhnē* as *hypokeimenon prōton* moving toward orthotheticity.

Linear and phonological writing is a programmatic *epokhē* suspending all forms of a heritage that is itself programmatic but as such does not appear to be, and which, in suspension, pro-grams an other vestige of the past, of anticipation, and consequently of a present conceived as presence. Which idea of today, then, would (improbably) program the *epokhal redoubling* of différant analogic, numeric, and biologic identities, thus throwing into crisis the presence of which *"today" consists*?

Today, decontextualization as re-realization of space and time

The decontextualizing ruptures constituting the effects of all forms of writing, well before the orthographic—but also all forms of technical expansion—, originarily relay the *who*, and the community of *who*'s, in an irresistible process of deterritorialization that Leroi-Gourhan calls the conquest of mobility. Today's technics has in this respect reached its limits. Some new writings—or mnemo-technics—have appeared. A new duplicatability and a generalized citability, with all the duplicity they contain, have been installed as the manifest mode of being of a memory that has thus become the primary matter of industrial activity—including in the domain of the human body: industrial exploitation of genetic memory through biotechnologies in all their forms is but a particular instance of reasoned exploitation of all forms of the already-there's basic elements.

Today is thus an other time. And it is within a horizon of alterity, of generalized alteration, that we must interpret Derrida's final strategic analysis of contextuality as the British philosopher J. L. Austin mobilized the concept. In the following passages, Derrida's goal is to shake the foundations of the Austinian analysis of performative acts within the context of an intentionality of consciousness. This does not inevitably mean the

destruction of all intentionality, but rather its being located on the side of the *what* as much as of the *who*. This is in turn a question of demonstrating the possibility of a performative with no subjective (i.e., present) performative intention:

> Austin's analyses permanently demand a value of *context*, and even of an exhaustively determinable context, whether de jure or teleologically . . . [of which an essential element] classically remains consciousness, the conscious presence of the intention of the speaking subject for the totality of his locutory act. (Derrida 1989a (1962(322)

In demonstrating that there is a performativity beyond all consciousness, that consciousness is not an element of an essential context, Derrida makes comprehensible what had appeared to be an effect of automatic and generalized performativity as engendered by contemporary technics—by the processes of real time and the online transmission of events developed by the analog communications media, but also by a biological science that has become technoscience. Derrida lays out the resultant difficulty here, of distinguishing constatives from performatives. We also remark all contextual forms' (understood as spatially as well as temporally determined) general destructibility, what Paul Virilio (1977) refers to as the derealization of space and time, a "derealization" that could not exist without having certain effects on a différance that the Occident had previously understood as the relation of text to context.

Today, "real time"

We must now take up an analysis of this evolution and its consequences on our possible understanding of the "*who?*" A characteristic of orthographic, différant identity is that it must be inscribed by and in the effects of an irreducible deferral, and irreducibly tested in reading. Yet although memory's analogic and numeric technologies are equally orthothetic, they tend to efface—at least in their initial effects—this deferred modalization of temporality.

If Prometheus's liver were able to articulate the *who*'s melancholy with the (orthothetic) rigor of the *what* as différance within the history of being and of the letter, what would it be today—which means: what will it be tomorrow? What then does *epimētheia* mean today?

As always, *epimētheia* means: delay because of speed. The contemporary *what* has frequently been defined by its speed. If speed, as advancement, has always been an essential attribute of technics, of the technical, then in the age of the letter, it is a question of delay as deferred time. Today, technical speed must confront this delay:[20] delegation of decision-making processes to the decision-making aids contained within informatic systems is but one strategy. It is as if technics had incorporated into itself the delay that had previously seemed to constitute the *who* as a variation of the *what*, thereby according it its very consistency. "Real time" is just such an apparent displacement, and the resistant reactions it incites result from a mute sense of the menacing possibility of an *in-différance*. Within the context of such a mondo-historiality, what thanatology is still possible—if a thanatology is in fact still possible, and indeed if it ever was?

This is what was meant in asking "what would be the effects of a dynamic of the what that short-circuited the work of this différance?"

Time can only be deferred. However, there is what is called "real time": this is perhaps the fundamental trait of contemporary technology—it is perhaps also the technological grounding in which idiomatic difference, as ethnic difference, is absorbed into technical difference, and along with it a certain epoch. What we today call "real time" is industrial time, the industrial production of time by the programming industries whose products suspend all traditional programs. This means provisionally linking the expression "real time" to cybernetic jargon—that is (in the vocabulary of *Being and Time*), to an ontic field, but, as in *Time and Being*, a particular ontic field: precisely the one that will replace philosophy. Included in this expression are all the phenomena of "online" information transmission. Thus so-called real time is not time; it is perhaps even the de-temporalization of time, or at least its occultation; yet it is still nonetheless time, industrially "won," and thus also lost—which is to say radically understood as apart from the *clock*, as *capital*, the extreme modality of "preoccupation." If, as we are trying to establish here, the already-there is nothing beyond its effective conditions of inheritance, of transmission, while anticipation is nothing but delayed appropriation (in and from dis-appropriation, forgetting, default) of "what has passed," a radical reconfiguration of transmission techniques will have a radical effect on temporalization as such. In such a context, the essentially techno-logical dimension of temporality can no longer be ignored.

Today, textuality of the who

Reading Roland Barthes's mourning at the Winter Garden photograph, we saw that analogic orthothesis is still a modality of the connection to death, within the exactitude of a reconstituted "piece of the past." In reading Bottéro, we have attempted to understand how a comparable connection had already been (re)constituted with literal orthothesis. What, then, would be the difference between the analogic and the literal? *Camera Obscura* already suggests it: the photographic image temporally coincides with the instant captured in the photo, the time of the pose. The result is an irreducible, specifically photo-graphic reality effect (it is impossible to photograph an event after it has occurred) that cannot be reproduced in writing (it is possible to record an oral statement orthographically after it has been uttered—and even before—, since it can be temporarily displaced in the subjective memory of the scribe, secretary, narrator, historiographer, or writer, which prevents the objectivity of the photographic lens and its black chamber).

What *who?* would then be (re)constituted?

The orthographic *what*'s différance is a modality of the *who?*'s différance—and it thus transpires that the elucidation of *différantiation* must take into account *not only* the supplementary specifics of the *what*'s epoch, but the articulations of the *who?* that it generates each time.

We must then analyze these supplementary specifics of the *what*'s epoch, up to today, to the present.

Only the fifth and final volume of *Technics and Time*, "The Necessary Default (Le défaut qu'il faut(," will be able to characterize in full what has been designated as the *who?* and to define the articulative modalities it generates. It will show that the *who* is *idiotic*:[21] it is Epimetheus, and that this further signifies that it is textual (which is not to say solely linguistic: this text is the assemblage of textures into which memory has been woven): this is what teaches Epimetheus the *what*'s successive Promethean orthothetizations. I shall thus call it the *idiotext*.[22]

§ 2 The Genesis of Disorientation

Retentional Finitude and the Dynamism of the *What*

Technics does not aid memory: it *is* memory, originarily *assisted* "retentional finitude." The history of this assistance, which is also the technological history of territorial conquest up to and including contemporary globalization, is André Leroi-Gourhan's focus in *Le mémoire et les rythmes* (Memory and Rhythm).

In the current globalization, the Occident is in the process of disappearing—there will no longer be an Orient; it has been dis-oriented, and that which fabricated "the Orient"—which never was "the Occident"—is also disoriented, in its own fashion, and quite brutally. Within the context of this dis-orientation (as an extreme intensification of the decontextualizing process just described), the three religions of the Book confront one another, in Bosnia, in Israel/Palestine and throughout the Middle East, and increasingly in Europe and Asia, and everywhere, confront, as a separate issue, the lay world of books—at the very moment when orthographic *hegemony* and its experiments with the in-finite, the theologico-political, and the theoretico-scientific are reaching their climax.

The epiphylogenetic history sketched out here addresses the elements required for a genealogy of this disorientation.

Spatiotemporalization, as exteriorization (as "conquest of space and time"), is always already also detemporalization and deterritorialization. But this process, experienced as disorientation, has today reached its limit.

In *The Fault of Epimetheus*, in an examination of the concretization process taken to its extreme as "associated media," we saw that the *what*'s concretizing dynamic took as read an anticipation of the *who*: the associated techno-graphic media's auto-conditioning could only occur through invention in a human operator. But anticipation itself assumes the presence of a technological dynamic that does not precede the technical tendency's exteriorization process.

This has been our understanding of the *who*'s operational relationship with the *what*, and the process of *what*'s differentiation of Zinjanthropos and Neanderthal. In a further effort to understand the parallels between corticalization and technical differentiation, I introduced the concept of epiphylogenesis, making it necessary to approach the opening sections of Leroi-Gourhan's *Le mémoire et les rythmes* (1965), volume 2 of *Le geste et la parole* (Gesture and Speech), in which he shows that the rupture in the process of exteriorization displaces the authority of *species* differentiation toward that of the *individual*, which after the Neanderthal leads to the appearance of various forms of ethnic communities in which a "dialogue" between individual and ethnic memory allows the individual to progress.

For the individual, ethnic memory is an already-there. Though constrained by it, the individual can develop a profound indeterminacy within ethnic memory by adapting it, and in this sense is "released" and "innovated" by it.

But it is precisely this already-there as already there that provides the individual's in-determination as (never realized) anticipation of death. In the end, it appeared that historic change was only possible when the already-there was constituted orthothetically.

Thus we must return to Leroi-Gourhan for a deeper sense of ethnic memory's technicity and the link between technics and ethnicity, the latter as the base for an idiomatics of the principle of differentiation.

My critique of the flint/brain connection, contradicting Leroi-Gourhan, opened onto the claim that Zinjanthropes were "social" and in this sense already idiomatic, having a language in the fullest sense of the word, even though that language and social sense remain for us radically inconceivable, foreign. After the Neanderthal, ethnic grouping began to appear. At the end of the corticalization process, the preponderance of society-formation signaled that the *maieutics* organizing the connections between cortex and flint had been displaced by a *maieutics* between the

ethnic group and the "technical tendency," which must then be inscribed in the link between the already-there and the undetermined.

Although the mundanity of the *Dasein* (the *who*) is [for Heidegger] a modality of temporality as preoccupation, itself consisting of a tissue of habits and constitutive, constraining determinants of the impersonal [*du on*], of programs simultaneously constructing hereditary and concealing traditions, Leroi-Gourhan introduces the question of habit as being constitutive of an ethnic unity that transmits their operative programs to its individual members. An "understanding that being-there is one's being" is thus a synthesis of this ethnic programmatics, its fulcrum, as valid at the level of the group as at that of the individual.

Is *Dasein* the individualized *who*, or the group that is divisible in fact (always threatened by *stasis*) if not in law (since this is the very meaning of the law: to affirm the group's indivisibility and thus its in-dividuation—its spiritual, moral, and political unity), of the *who* as *we*? In other words, where must indeterminacy finally be instantiated?—in the *I* or in the *we*? The being-toward-death and isolation that characterize *Dasein* seem to indicate that only the *I* can be the instance of indetermination.[1] And yet Heidegger sometimes refers to the *Greek Dasein*—which could not be an *I*. This is a genuinely primal question since if the *Dasein* must finally be a *we*, the opposition between intratemporality and authentic temporality would be problematic. Understanding the *Dasein* as a *we* would inscribe indeterminacy firmly within idiomaticity, which is consistent with Heidegger's last proposals but incompatible with *Being and Time*'s propositions.

The idiomatic, being always already ethnic, a commonality and simultaneously, effectively idiomatic only as a singularity separate from the communal, assumes that the opposition between program and improbable, between *what* and *who*, has been transcended: the idiomatic would then be constituted by the *what*—which is what the question of the orthothesis has already rendered thinkable for us, in the sense of the emergence of citizenship is a modality of idiomaticity.

Leroi-Gourhan proposes a structuring of memory at three levels: the specific, the socio-ethnic, and the individual. But he contrarily pursues the idea of a fourth memory as well, one that does not coincide with a socio-ethnic level where it would appear as *hypomnesic* memory revealing the *what*: namely, the appearance today of the pre-programmed machine as ejecting the *who* from its ethnicity while destroying its elementary

operational and behavioral chains, and thus destroying ethnic unity, as territorially constituted. This fourth memory is the completion of the technical tendency when carried out by the ethnic group, and this power is an essential aspect of technics *today*, which is only possible because habit was already a program.

But the program is thus also the possibility of dis-habituation—that is, for decontextualization. We have seen how différance functioned as the possibility of a break with context; now we shall see how the general history of the *what* has always been that of a succession of ruptures, as principally manifested through the suspension of existing programs, and how the possibility of an improbability is created through the sole fact of the *what*'s development.

It is epiphylogenesis as such that gives rise to decontextualization, as the legacy of past constitutive experiences of lived, present experience, of consciousness—and, in a unique way, of the consciousness of idealities: iterability is essential to an ideality that must be capable of being repeated. In always already decontextualizing, in suspending already-constituted programs, technicity forms the basis of, and the fertile ground for, consciousness. Following the neolithic epoch, consciousness is engrammed as such, technicity is transformed into the orthothetic, and science is able to emerge.

The accumulation of this consciousness is, properly understood, the trace of *past Dasein*, what Heidegger calls the mondo-historial. All past being is potentially mondo-historial; all *what* is epiphylogenetic. But there still exists a mondo-historiality of the *what* that is essentially hypomnesic: everything related to the deliberative practices of preservation are part of it. And especially to the preservation of writings. Leroi-Gourhan tells the story of the preservation of writing as inscribed in the technical tendency and the principle of exteriorization that governs it: in so doing, he recounts the history of tertiary memory's technological configuring. And because finitude is originarily retentional, the exteriorization principle producing the *what*, through the suspension of constituted programs, impacts memory functions, and then the imagination.

Leroi-Gourhan's analysis answers Heidegger's claim in *Being and Time* that "what 'occurs' with tools and works as such has its own character of motion, and this character has been completely obscure up to now" (Heidegger 1996 (1927(, 389).[2] The history of memory as *assistance* is in effect that of the conquest of movement, of mobility. The systematizing

of exactitude should be seen as the working out of a radical decontextualization: Leroi-Gourhan's "programmatology," while articulating a wide variety of programmatics—physiological, socio-ethnic, and figurative—all within the logic of the *what*'s development within the technical tendency, highlights the technological nature of these three levels in an analysis of mobility inscribing the mondo-historial in a privileged place: articulation through the *what* is in effect creation of the group's connection to space and time that, once the exteriorization stage occurs, leads to the appearance of différant analogic and numeric identities whose principal characteristics are speed, instant transmissibility to all points on the globe, and the absolute permeability of all traditional programs, which have been suspended.

Leroi-Gourhan jettisons the principles of an articulation of the *who* and the *what*. Their dynamic principles (as modalities of differentiation) must be understood at the level of the group. *Dasein*'s dynamic is its temporality. Leroi-Gourhan's reading teaches us that this dynamic cannot be understood *as Dasein* if it is an *I*. This is why he sees the *who* as a *we* integrating the *what*, operated through the diversity of a *we* composed of individuals always already derived from the unity formed through the fact of their originary default, their original idiocy, the structure of their retentional finitude that requires assistance.

This triple structure (individual, group, *what*) is the reification of memory's three conceptual levels. How are they to be articulated, and how will they give rise to what will expel the *who* from its ethnicity and its traditional assistance, through the exteriorization of the nervous system and the imagination? How can programs give rise to indetermination, the improbable, the unprogrammable? Answering these questions requires the development of an aesthetic, grounded in the animal aesthetic of reproduction—a technics rooted in zoology that, though always already traversed and controlled by the technical tendency, finally breaks with it: no physiological (corporeal) tendency, no figurative (symbolic) aesthetic exists that is not ipso facto connected to a functional aesthetic in which the generation of forms occurs in their various modes according to the general principles governing the relation of the human to matter itself.

Posed thus, the question of group memory's genesis becomes that of rhythm. Through the concept of the program, rhythm and memory are articulated in a group synthesis forming a fundamental relation to space and time.

Becoming Ethnic, Memory Supports, and Program Writing

In the post-Neanderthal, the technological works in concert with physiology and ethno-sociology (or the symbolic): the corticalization process's conclusion requires the establishment of epiphylogenesis as defined here: no longer of the cortex but rather of the social—as what is different from "tools." Becoming ethnic begins as a movement of differentiation that is no longer only the enrichment of technical forms, but the human group's territorial diversification. Consequently, the social receives its new definition in a new instrumental maieutics. And thus Leroi-Gourhan pursues his thoughts regarding exteriorization, which began in a kind of prosthetic extruding of the skeleton into the tool ("veritable secretion of the body and the brain"), and which he will then follow through to the current stages, the central nervous system (as the electronic), imagination (as the specialized industrial production of tele-diffused images and sounds), and muscle (as exteriorization of "motricity" from the mastery of natural energies to the domestication of animals to the motorized machine). The fact that imagination is fundamentally implicated in this process means that exteriorization is also the principle of the *aesthetic*.

The evolution of these analyses, conjoined with the theme of a possible conflict between ethnic groups and technical tendencies, provided a significantly different result from that of 1945, at a time when Leroi-Gourhan did not believe at all in the possibility of the disappearance of ethnic grouping, while "The Symbols of Society" (Chapter 13 of Leroi-Gourhan's *Le mémoire et les rythmes*) speaks about constructing a mega-ethnic group that would be like the *telos* of the becoming ethnic.

Leroi-Gourhan describes this becoming as the "liberation" of memory articulated at three levels: specific, socio-ethnic, and individual. Corresponding with these three levels of memory is a *rhythmics* generating a *triple aesthetic*: physiological, functional, and figurative.

The central concept is the notion of the *program*, as thought out of the memory-rupture of exteriorization and of these three aesthetic layers, themselves related to the three programmatic levels of memory, the general aesthetic forming their *articulation*. A particular form of memory regulating human groupings will correspond with a particular form of program: namely, exteriorized programs no longer inscribed in the organ-

ism itself. Consequently, the question is first of all that of the supports of memory, and we must understand this

> in a greatly enlarged sense. It is not a property of intelligence but, whatever it is, of the ground on which the sequence of acts is inscribed. One can for this reason speak of a "specific memory" when defining the fixing of the behavior of animal species, of an "ethnic memory" that ensures the reproduction of behaviors in human societies, and on the same basis, of an "artificial" memory, electronic in its most recent form, that ensures, without recourse to instinct or reflection, the reproduction of mechanically sequenced acts. (Leroi-Gourhan 1975, 2: 269, n. 14)

The uniqueness of human memory determines human "cognition," and "before the creation of artificial brains, societies tended to face the inscription and preservation of a wealth of knowledges that has been immeasurably expanded." This knowledge expansion, which is also a ceaseless program writing, is the dynamic of memory's liberation, indissociable from an evolutionary logic of media in their more technical nature, which, like all technical objects, work across the determinant technical tendency. In our terms, epiphylogenesis engenders the proliferation, in life, of a type of memory as irreducible to zoology as to psychology, in the course of which the becoming ethnic is written—but also effaced as ethnic. Just as with the flint/cortex maieutics, the technic/ethnic maieutics will have had only one epoch of connections between the *who* and the *what*.

Epochs and Programs

As new programs appear, they suspend operant programs (by re-integrating them, subjecting them to new control), thus suspending epochs themselves. As ceaseless *epokhē*, human history would consist only of such suspensions—at the risk of needing to envisage a "human" program, only to find it too suspended, or rather to have always been oriented toward its own suspension.

One such possibility of suspension is the principle articulating the three memory layers, specific, socio-ethnic, and individual, that along with the technical tendency account for the techno-anthropological dynamic.

Three comparable layers are at work in Husserl's *Research on the Constitution*, but with the slight difference that they are not conceived as programmatic, on the one hand, and that on the other hand *as programmatic*,

these layers are traversed by a techno-logic dynamism of the *what* that is completely absent in Husserl's, which are part of a heritage that contains its own destruction, which only externalization, the new pro-grammatic system controlling a life that has become *tekhnē*, has made possible. Temporalization is indissociable from exteriorization qua epiphylogenesis, freeing up new possibilities of individuation through genetic modification. A principle of selection controls this evolution:

> Very important consequences of the separation from zoological nature through ethnic memory include the individual's freedom to exit from established ethnic frameworks and the possibility for ethnic memory itself to progress. (Leroi-Gourhan 1975, 2: 22)

A full understanding of this progression requires a description of the cases where application of the exteriorization process has constructed a general programmatics; the nervous system is a machine "responding to internal and external input in constructing its program," "program" being the essential concept in allowing equally for the animality/humanity and the humanity/technicity divisions to be transcended: Leroi-Gourhan's anthropology is a radical exercise in "de-anthropo-centralization." This concept of the program contains an entire scientific program, which applies just as much to zoology and anthropology as to technology: it is in fact the combinative principle uniting all of the so-called cognitive sciences—from the animal to the machine by way of the human. We must examine the limits of this convergence more closely.

To do so we must further interrogate the concept of "program," since when we compare animal and human societies, "the problem is not . . . to be found in the contrast between instinct and intelligence but between two modes of programmation." Only from this perspective can we understand the question of the requisites for the appearance of a fourth memory, neither specific, nor ethnic, nor individual, but essentially machinic.

Selection as Double *Epokhal* Redoubling: *Grammē*'s, Identities, and Differences

Ethnic programs construct any human group's unity even while supporting its possible differentiations, just as much as its uniformization through fusion with other groups.

Ethnic memory determines the automatic practices that regulate the individual's "operatory behavior":

> All that is enacted by the subject becomes a part of operatory behavior, but in forms and with intensities that are very different according to whether they are simple, everyday practices, more widely spaced practices, or exceptional practices; programs presuppose levels of intellectual intervention and differing individual-societal connections. Elementary practices constitute the individual's essential programs, everything that in mundane activities is salient to survival as a social element: bodily habits (*habitus corporel*(, practices of eating or hygiene, professional activities, interactive behaviors with family. These programs, whose foundation is immutable, are organized in networks of stereotypical gestures whose repetition guarantees the subject's normalized equilibrium within the social milieu, and essential psychic comfort within the group. (Leroi-Gourhan 1975, 2: 28–29)

As distinguished by their more or less routinized cycles, daily or annual, and always inscribed in some kind of calendrical structure, programs create rhythms out of repetitions, from eating and personal hygiene to religious festivals, through work, prayer, rules of social behavior, and laws of hospitality. This repetitive stability is all the more an inscribing of ethnic character to the degree that it consists of the most mundane programs: "These are the most elementary practices, whose networks begin their formation at birth and which mark the individual most strongly with an ethnic imprint." This imprint's mark is an indispensable aspect of group cohesion, as essential for the group as for the individual; its disappearance would mean the destruction of ethnic unity.

Yet current versions of the technical tendency may well effectively destroy it given the advancement of technics over ethnicity, rooted in bodily delay. This anachronism, however, is originary—as *epimētheia*—and accelerates the dynamism of the organization of groups. This contemporary possibility of destruction, pure and simple, has its origins in the thermodynamic revolution:

> The birth of automotive force is . . . an essential biological step, if one admits that biological transformation is a fact that applies at once to the physicalization and the behavior of being who attain it. It does not matter that it concerns external body organs if the transformation forms a new, living reality. It is clear that previously, human evolution toward *homo sapiens* witnessed a more and more flagrant separation between the unfolding of bodily

> transformations, which remain within the framework of geologic time, and that of the transformation of tools, which is linked to the rhythm of successive generations. Some accommodation was thus indispensable to the survival of the species, an accommodation that was not only important to technical practices but, with each mutation, involved the recasting of the laws governing the grouping of individuals. (29)

This recasting is a veritable technological epokhality that, within any group, will disturb the unity of the *who*'s history, which is routinely disturbed by the history of the *what*:

> If the connection to the zoological world can be maintained only at the price of a paradox, it is no longer possible not to consider that humanity changes its species a little each time it simultaneously changes its tools and its institutions. Though fundamentally human, the coherence of the transformations that affect the entire structure of the collective organism is of the same order as that of the transformations affecting all the individual members of an animal collectivity. Yet social connections take on a new character with the unlimited exteriorization of the motor force: an observer who was not human and who remained outside the explications to which history and philosophy have accustomed us would differentiate the eighteenth-century human being from the twentieth-century one, just as we differentiate the lion from the tiger, or the wolf from the dog. (50)

This unity is (re)constituted, however, as access to the *communal* already-there that accumulates across succeeding generations—the question, then, regards effective means of access, and, through it, of sequencing. This is being posed very intensely today because the exteriorization of the human as such has reached its limit, meaning that contemporary technical *epokhality* is radical, equal to the most powerful ruptures that humanity has ever known, capable of overturning humanity's apparently most stable constituent elements and threatening to bring the ethnic constitution of groups to an end, through the delegation of programmatic operations in machines themselves:

> Realization of automatic programs is a fact culminating in human history, of an importance comparable to the appearance of the axe or of agriculture. (50)

Programmatic rupture, along with machine programs, thus attains a veritable archi-epokhality.

This all takes place as if the technical tendency, whose implementation requires ethnic diversity, could suddenly disappear because of it, which does not mean that it could happen to groups or to intergroup diversity, but that it would no longer be ethnically constituted. A loss of the feeling of belonging to a community became evident with industrialization, to the extent that an essential part of the elementary operative networks that brought about the sense individuality—and in which the ethnic was most forcefully marked—was transferred to machinic apparatuses or were adapted to their automatism:

> With the passage to industrial motricity, the situation was profoundly changed. . . . The worker was placed in the presence of sections of networks measured out by the machine's rhythm, of series of movements that left the subject on the outside, a complete "technical deculturation" occurred, conjointly with the loss of belonging to a group with a clearly defined personality and on a comfortable scale. (59)

Gilbert Simondon has shown that with the Industrial Revolution technological individuality passed from the trained worker, articulated with the *what* through his hand, to machine tools. The issue is thus a *loss of individuation* on the part of the *who* in favor of the *what*. For Leroi-Gourhan, the break is so significant that humanity must contemplate the abandoning of the name *Homo sapiens*: "If one could put wood into a machine without being concerned about grain and knots, and the result was a standard parquet block, automatically packaged, it would doubtless be a very important social gain. But that would leave humanity no choice but to renounce remaining *sapiens*, to become something better, perhaps, but in any case different" (59). Might there then be new possibilities of individuation of the *who* within that of the *what*? And what rupture would this name-change mark, what extraordinary modality of networking by the already-there?

To rigorously formulate such questions requires the evaluation of what is irremediably lost, what can and must be preserved, and the accord that must be made with the undetermined.

In such a situation, the individual would no longer be networked, properly speaking, within a heritage. But we should pause at this point and return through it to our initial issue: selection.

A true principle is what begins at the very origin, here the default of origin and as what never did begin, and which persists, in and as the

generating of de-faults (prostheses). From the very origin, "exteriorization" has been the principle of epiphenomenological phenomena (I stay with this word despite the difficulties it raises, as has become clear). From this originary principle, we have derived a principle of doubly articulated selection: on the one hand in the liberty of the *who* (as tradition's latitude of "appropriation"); on the other, in the dynamics of the *what* (as the technical tendency). The technical tendency is not homogeneous with tradition: in fact, it runs across ethnic diversity universally—it is its différance.

Tradition's principle of selection is its repetition through the *who*. But this repetition is a disturbance—and it is as such that it is appropriation and difference. Yet it is first of all a question of disturbance through the *what*, that is, of programmatic suspensions proceeding from the technical tendency as advancing on the *who* and its heritage, without which it is nothing. The *who* is thus the impact point of this gap, this distention liberating the possibility for ethnic memory itself to progress.

These possibilities of the *who* are rooted in those of the *what*, as prostheticity frees up conditions of access to the already-there, and thus of the *who*'s anticipation, this anticipation being itself determined by the technical tendency. The technical tendency is the constitutive principle of selection WITH the anticipating *who*. The technical tendency runs across tradition, passes through it but also beyond it, suspending all frontiers, rendering the boundaries between diverse ethnic milieux permeable and thereby instigating possible translations, transfers, and idiomatic exchanges. In turn, the individual can suspend ethnic programs or "replay" them as the past already-there in the mode of a future carried forward through the singularity of a *who*.

Technics engages in selection as double redoubling: redoubling of tradition through the technical tendency of which it is the provisional ground, as a diffracting medium, and redoubling of the technical tendency through the *who* that anticipates out of possibilities concealed in this suspension, and inscribes it in memory in details, singularly, transforming it—programmatically. The reference to repetition in the most ordinary programs was clearly not inconsequential: repetition engulfs the technical tendency, and the *who* is repeated and differentiated as a function of the possibilities, new each time, of repetition opened by the *what* under pressure from the tendency: the most notable result is orthothesis.

If *today*, at the limit of industrialization, we tend to be no longer able to form vital links with tradition, since it is disappearing, what then happens to a second articulation of the principle of selection residing in the *who*?

This question should be directly linked to the "out of hand":

> Not to have to think with his ten fingers is the same as losing a part of his normal thinking, philogenetically human. He exists, then, on the scale of individuals, if not at that of the species, as of now, a problem of the regression of the hand. . . . Manual disequilibrium has already partially broken the link that existed between language and the aesthetic image of reality, . . . it is not through pure coincidence that nonfigurative art coincides with a "demanualized" technicity. (59)

In *The Fault of Epimetheus*, I emphasized the permeabilization of interior milieux today, through expansion of information and communication technologies and the disappearance of the "interior" that has been its result (and this would not be a danger if twentieth-century philosophy had produced a radical critique of the "myth of interiority" in its most diverse forms). The interior's disappearance is clearly a catalyst of the very possibility of development of various media, as analyzed in Simondon. This is the context in which it is possible to pose the question of "real time" and of "in direct," and more generally of the decontextualization addressed at the end of previous chapter.

The determinant technical tendency should be seen as the implementing of a calculation that, whether as a conscious modalities or not, wants to determine the undetermined, which appears as detemporalization—through speed—and which, manifested as modern technics, fabricating the wood-worker as much as the wood (Heidegger 1993b (1953() and reduced to being "in-hand" and "under-the-hand," deprives *Dasein* of its hands and destroys its traditional historiality, which Heidegger believes emanates from "the forces of earth and of blood." *However*, as the operator of programmatic suspensions, the technical tendency would also administer the possibility of testing the undetermined, and through so doing, (re)constituting a *who*, and thus historiality—if not History. In consequence, it becomes the possibility of a non-traditional—that is, non-ethnic—history. Or rather, it is a matter of determining the possibilities of epokhal double redoubling within the conditions of contemporary technics.

"What is it to be oriented in thought?" To Be Oriented in the Already-There

"Memory expanding," the history of memory's exteriorization, is the overall focus of the supplement's history from a techno-logical perspective. In 1965, Leroi-Gourhan, anticipating the "tape library," *hypertext*, and the *multimedia* that have today made so many fortunes, laid out the initial parts of a study of epiphylogenetic dynamics, addressing the resulting problem of the *delegation of knowledge to automatism*; he demonstrated the problems for access that it poses, the many transitions along the path from "knowing" humans to "objective" knowledge, the chain of artificial memories, and the transformations of understanding—of consciousness itself—that it all implied.

This is a history of tools for the *orientation* of knowledge, tools that are increasingly instances of an originary hypomnesia of memory, a *passive synthesis* that creates knowledge, and that makes the appearance of orientation's devolution into prostheses possible. The conditions for knowledge's *transmission* are also those of its *elaboration*; the history of collective, mnemotechnic memory "can be divided into five periods: that of oral transmission, of written transmission with tablets or indices, with simple filing systems, with mechano-graphics, and with electronic seriation, . . . while the group's body of knowledge is the fundamental element of its unity and of its personality and the transmission of intellectual capital is its necessary condition on both the material and social levels" (Leroi-Gourhan 1975, 2: 65). With the arrival of printing,

> not only is the reader brought into the presence of an enormous collective memory whose contents cannot be fixed, but it is frequently utilized in new writings. It thus contributes to the progressive exteriorization of individual memory; it is through the exterior that the work of written orientation takes place. . . .
>
> The European eighteenth century marked the end of the ancient world in writing as well as in technology. . . . Social memory absorbed through books in the course of several decades, all of Antiquity, the history of great peoples, the geography and ethnography of a world that had become definitively round; philosophy, law, the sciences, the arts, technology and literature translated into twenty different languages. The flood goes on developing with us but, in all fairness, no moment in human history had known an expansion as rapid as that of collective memory. (65)

True navigational tools then appear that, within the epiphylogenetic horizon that makes it necessary, deal with access to the already-there by delegating the *who*'s authority to *whats* as orienting instruments in the accumulation of knowledge—library catalogues, indexes, bibliographies, sets of files made possible by the printed book through its serialization, pagination, synopses, tables of contents, glossaries. This amounted to a disorientation of the *who*, constrained to attend on—even to have access to—the *what* in which it then had to circulate and thus in which it was located. A teleguided reading process then appeared through development of new pro-grammatic techniques that have led today to new purely electronic methods of editing and to computer-assisted reading systems.

The advent of printing is thus a major transformation of the orthographic epoch of the already-there, clearly showing that it must be differentiated from other periods. One could, moreover, relate this specific event in the history of humans and writing (*de l'être et de la lettre*(, the appearance of printing, to the birth of modern philosophy, as analysts of the emergence of Protestantism have not failed to suggest. From there it is only a small step to saying that modern technics qua metaphysical achievement emanated from the letter's reproducible mechanization and could only be preceded by it.

When the elements of a contemporary technics designed for information processing develop, a truly automatic activation of memory will have appeared, as the harbinger of an exteriorization process of the cerebral cortex's functions and, on a wider scale, of the entire nervous system:

> Collective memory, in the nineteenth century, achieved dimensions such that it became impossible to ask the individual memory to ingest the contents of libraries; it appeared necessary to organize the inert thought contained in the collectivity's printed brain in a supplementary web consisting of an extremely simplified image of the total contents. . . . A further step was taken when the file had index sets, for example color-coded ones, that allowed for re-dividing the current indexing system by a second network of references, or, better still, when what was involved was a punch-card index. (73)

This is an entirely new step in exteriorization and a new orthographic period—which gives rise, as we shall see, to the numerical orthothesis, implying a (further) loss of participation by the *who*, or at least a modification of its modalities, since the *what* teleguides the reading that *is* the *who*:

> The raw book is comparable to the hand tool: it is so perfected that it requires complete technical participation on the part of the reader. The simple file set already responds to a manual machine, since parts of the operations are transformed and contained in a virtual state in the files, which it is necessary only to open. Punch-card files are a supplementary step, comparable to that of the first automatic machines. (73)

Here one sees the *tertiary memory* overcoming a fundamental dynamism—which *rapidly* results in the appearance of the *dynamic* (numeric) *medium* of the already-there: "punch-card files are machines for the gathering of memories; they act like a cerebral memory with infinite capacity likely, beyond the means of human cerebral memory, to put each memory into correlation with all the others" (74). Here more clearly than anywhere else the continuity between animal and human, *as* between life and non-life, or between living organic matter and the inorganic organized matter of the technical organism, is confirmed: "with animals such as the earthworm, the slug, or the limpet, memory is easily comparable to that of an electronic machine." (14) If one makes a detailed comparison of these propositions with the concepts developed during the ascendancy of the "cognitive sciences," it seems astonishing that Leroi-Gourhan showed so little interest in them, for example, when he writes that:

> to imagine that there would not soon be machines transcending the human brain in its operations relating to memory and rational judgment is to reproduce the condition of Pithecanthropos, who was denied the possibility of the biface,[3] the archer who would have laughed at arquebuses, or, even more, the Homeric rhapsode rejecting writing as a memorization process without a future. Humans must become accustomed to being less powerful than the artificial brain, just as teeth are less powerful than a grinding mill. . . . The cerebral cortex, as admirable as it is, is insufficient, just as are the hand or the eye . . . electronic modes of analysis complement them and . . . in the end the evolution of the human being, a living fossil relative to its current situation, borrows other ways than those of neutrons to perpetuate itself. (75)

This evolutionary "other way" is, perhaps, precisely what cognitive science still has not clearly recognized in continuing to see cognitive machines as mimetic substitutions for human traits ("Can machines think?") when in fact the issue is not that of not reproducing human traits, including thought, but of a total transformation in which the organic human being,

plus all the accumulated knowledge, in its many genres, that is vital to humanity, and all the instruments developed by humans, combine to form a complex mix of these three elements. Leroi-Gourhan conceives the evolution of this multifaceted admixture as the possibility of an a-human becoming, resulting from the discrepancy between technological *speed* and physiological *slowness*.

What the cognitive sciences avoid thinking in their neglect of this techno-anthropology is *the organ*. This avoidance is clearest in the work of Jerry Fodor, most notably in his use of Noam Chomsky's work to defend his "modularity of mind" hypothesis. And if, in an epiphylogenetic future, writing and the transcribed recording of memory play an essential role, it would still be notable that Jean-Pierre Changeaux's analysis of writing, cultural imprinting, selective stabilization, and, more generally, his entire idea of "anthropology," profoundly neglects some of its most important aspects (Changeaux 1985 [1983]).

Programs and Aesthetics

Leroi-Gourhan's programmatology allows not only for thinking becoming as transmission qua differing repetition, but also for enriching it with a need for forms that is confirmed in the behavioral diversity generating the nonzoological transmission of programs. And this dynamic of forms, as the object of aesthetics, is also where the technical tendency conjoins with the *who*—and with the *who* insofar as it desires, as if this conjoining were erotic.

Even if a sense of the aesthetic as an aspect of group formation and differential reproduction had only been possible since the programmatic event of techno-logic being; even if the dynamic of repetition is transformed within memory after this "rupture," we would still be required to think the aesthetic through the most rudimentary biological forces:

> birds . . . demonstrate through a profusion of details that the most elaborate instinctive behaviors relate to reproductive operations. (Leroi-Gourhan 1975, 2: 16)

In the same manner, human encoding is reinscribed in the relational behaviors of all human beings, as the mark of group membership, the mark of power, of war and of seduction:

> There is no fundamental difference separating the crest from the plume, the cock's spur from the sword, the nightingale's song or the pigeon's bow from the country dance. But their modulations are so varied that ethnicities are created from successive generations in a particular ethnicity and from social division within the group. (198)

This notion of an aesthetic requires a typological description of programs as rhythms even more than as memories. Programming combines heritage qua already-there and ethnic solidarity, as repetitions, into aesthetic patterns, which then structure idiomatic shifts—just as the possibility of the becoming ethnic's effacement, within mega-ethnicity, conceived as a synaesthetic alteration catalyzing an advance in motor functions going beyond physical proximity or links to territory within the body's limits. This development occurs through delegation of functions applying first to the skeleton, the musculature, then the nervous system, and finally, currently, in the symbolic, in instrumental programs—tool, machine, or the industrial complex itself. This phylogenesis of the exteriorization process precisely demonstrates the epiphylogenetic principle of the evolution of technics, conceived of *as suspension* of the efficacy of already-constituted programs,

> a property unique to the human species, which periodically escapes, while limiting itself to the role of animation, into an organic specialization that definitively binds it together. Physical (and mental) inadaptability (human idiocy(is the significant genetic trait: [man is] a tortoise when he hides under a roof, a crab when he elongates his hand into a grip, a horse when he becomes a rider, he always emerges as "re-assignable" once again, his memory transported in books, his power multiplied by oxen, his fist strengthened by the hammer. . . . Humanity changes its species a little each time it concurrently changes tools and institutions. . . . Social connections take on a new character through the unlimited exteriorization of the motor force. . . . Advances in the use of electricity and, above all, the development of electronics, have in less than a century, through the transmutation of automated machines, brought about a transmutation beyond which there no longer remains much to exteriorize in the human being (48–51)

and the arsenal of miniaturized devices constituting the most advanced machines "compose, through replaceable parts, the elements of an assemblage strangely comparable to a biological assemblage" (51).

The aesthetic's rhythmic programs are, however, first those of the body itself, and more precisely of the body parts responsible for the five senses. It is an Aristotelian strategy that grounds the thought of the sensible in that of organs whose originary diversity appears to be irreducible.

It is the aesthetic, accounting for the evolution of forms as well as for their persistence and rooted in the technical tendency, that engenders the thought of "individual liberty," that higher level of memory in which the symbolic as such, qua phenomenon of reflective thought, is to be found. Epokhality is a principle of aesthetic evolution, and it is in this sense that it is doubly articulated, through the technical tendency and idiomatic singularity. This "physiology of taste," based on the concept of programs and specific socio-ethnic and individual memories, which thus must be conceived of separately from zoology, are neither simply "materialist," in that they doubly articulate the principle of selection, nor simply essentialist, in that in general they break such oppositions as animal/human and living/non-living; the principles of the functional aesthetic are "drawn from the laws of matter and for this reason (can(be considered as human only in a very relative way." Becoming-aesthetic conjoins the physiological aesthetic, as the functional aesthetic subjected to the technical tendency, and the figurative aesthetic (including the symbolic; i.e., the idiomatic). This integration takes place primarily within the exteriorization process, to the extent that

> technics and language being only two aspects of the same phenomenon, the aesthetic could be a third one. In such a case, there would be a clear connection: if the tool and speech emerged through the machine, and writing through the same steps and at roughly the same time, the same phenomenon should have occurred for the aesthetic: from digestive satisfaction to the beautiful tool, to danced music, to the dance watched from an armchair, there would have to be the same exteriorization. (89)

That would extend from the mythogram to the contemporary "stage of specialization in which the disproportion between the producers of aesthetic materials and the ever-expanding masses of consumers of prefabricated or pre-thought-out art" (89).

The Mark of Style and Programs of the Improbable

As a redoubling of programmatic repetition, articulation of the *who* and the *what* implements an indetermination that is simultaneously the enigma of style—an enigma resulting from its indescribability.

Style is the mark and the highest level (*la pointe*(of singularization, an idiomaticity that cannot be thought simply as language, but more broadly as the medium manifesting personal singularity, in the sense in which one can speak of ethnic personality or of a person's physical or moral personality. Here person means *person*, im-personality as such: personal style is always contained within a less personal style, within a certain impersonality. Mozart's music is German, El Greco's painting Spanish, Proust's language French, Celan's poetry Franco-Judeo-German. Style's personality reveals itself as figure on the ground of a style that is already-there, and of which it is both the highest truth and simultaneously the most strange. Style is *occurrencial*: Mozart's style is not simply an occurrence of the German *musical* style. It has always been localized, and the more it is localized, individuated, the more it is contested. At the same time, style always delocalizes,[4] tearing itself out of its spatiotemporal determinants; it circulates, penetrates, invades; it is transferred, translated, expanded—and lost. Style is idiomaticity. The stylistic component of all things, both material and immaterial, of all methods and modes for manufacturing automobiles and forks, is idiomatic dissemination in all of its forms. Style is always the product of a place; it speaks the unity of a group or of a person, a work or a particular technical know-how. Like the technical tendency, it crosses frontiers, renders the tightest protections permeable. This is why the idiomatic's frontiers are quintessentially fluid: the singular idiom is never absolutely foreign to another idiom—which always appears to be at once a *non*-idiom, barbarous, insignificant—and also idiom par excellence—the idiot, singular and strange. Like Spanish and Italian, French is Latin, and like German, Latin is Indo-European, and so on. At the same time, the experience of the idiom can be lost: it has always already been parasitized by its other; its singularity is always already effaced. And yet singularity returns, its parasitizing (as its alteration, its alterability) reviving its essential alterity. The idiom is recurrent. It is effaced and yet remains ineffaceable, remains ineffaceably, because it is the law of the remainder: of the accident, of idiocy.

Style is absolutely deictic. As the radical experience of space and time, of originary locality, style is the anchor for all contextuality as for every possibility for escaping from context. Non-describable (*non-descriptible*],[5] it can only be reinscribed, repeated, and transformed in an other style's repetition, in the other of a repeated style, in its thoroughly contested différance: it is radically resistant to *apodicticity*; it can never be apo-dictized. Like all idiom, as idiom's veracity, style is untranslatable. In this sense, it is less resistant to the industrial (re-)production than within it (since it can enter it as a parasite: e.g., jazz, which Adorno couldn't understand). And yet, like industrial re-production, style is dedicated to translation, given to publicity—though always for the invention of another style, that never fully appears. In-describable, style is un-sure of the fact of its in-describability. It is indeterminable and undetermined and, as such, it is the mark, the cipher, the *grammē*, and the weight of the undetermined, the default—while it is created out of the defaults of the stylist, conceived as the withdrawn and marginal figure of the artist who appears along with industrial society, as pariah, handicapped social specialist of the undetermined, of the idios. What penetrates through the artist, the focal point of style, is always the originary default of origin. It is the most immediate expression of *epimētheia* and of its idiocy, evident everywhere, making use of everything, finding support in any and every material: "one can, through detailed mechanical analysis, explain how the English automobile engine differs from the French one, or the Russian, though the "automobile" is common to all. It would be necessary to engage in an enormous analysis to explain why, in a blink of the eye, the observer can see that a car is "truly English" (Leroi-Gourhan 1975, 2: 90). Style underlies sensory experience, and this is why the world panics when ethnicity is effaced: style has always been understood as the instantiation of ethnic territoriality, and this was while being constructed against such an ethnicity. Could industrialization, the making-permeable of the world through the universal technical tendency, the destroyer of ethnic diversity, be the end of style, of meaning, of the world? We would have to understand why style, as a tendency, creates permeability and is disseminated. In fact, what should be mourned is territoriality. Which does not mean locality, since it is possible to see place, style, outside of territory. It is rather a matter of accepting a new style of style. To have place is not to have paternity, roots, a place of birth certified in the soil and the blood, but rather to give place to the new. And the new is precisely the mourning of territoriality.

In that sense, it is possible to conceive of style qua experience of locality, since spatiotemporality is created programmatically: there is articulation of programs, and through that the integration of the *who*'s three memory-levels, through the intermediary of the *what*, and first of all articulation of cosmo-physiological programs:

> The most important manifestation of visceral sensibility is linked to rhythms. Alteration of the times of sleeping and waking, of digestion and hunger, all physiological cadences form a woven texture on which all activity is inscribed. These rhythms are generally linked to a larger fabric, which is the alteration of day and night, of meteorological and seasonal changes. (99)

This stable base, informed by elementary ethnic programs, is the ground from which religious and aesthetic practices separate themselves, suspensive techniques implementing programs of the improbable—of "counter-rhythmic life": this would be the "Sunday" of a life indispensable to all programmatic equilibrium. On the basis of these mechanisms, already technical and primordially belonging to the contingency of repetition, faith and admiration can be constructed.

And yet a society of industrial production systematizes the separation of suspensive religious and aesthetic practices from those of the common run of people, to be assumed in their turn by specialists—but this process is established well before industrialization (the classical age asks: can one still participate in a mass while watching through a telescope), since from the outset it contains the marginalization of idiots:

> Breaks in natural rhythms—of waking up, of the inversion of day and night, fasting, sexual abstinence—all evoke the religious domain rather than the aesthetic, simply because the separation between the two is nearly eradicated in modern culture, but that is a recent consequence of the social organism's evolution, the result of a process of rationalization of which we are the promoters. . . . Avoiding the breaking of essential rhythms through isolating the religious and the aesthetic put the individual in a favorable position for the effective functioning of the socio-technical system. (100)

The sage's fasting is inscribed in a constitutive suspensivity of historialo-technical life, as the breaking of cosmic programs, but that it also radicalizes in carrying it to its furthest degree: "for the sage, cosmic dis-insertion begins at the level of the digestive tract, in a process of initial purification that brings it progressively to support its existence while simply swallowing air" (100).

This "quest" for the improbable through exasperation or the contradictions of corporeal rhythms is also expressed through dance, one of the last practices of "suspension" that has been collectively preserved today: "acrobatics, balancing exercises, and the dance materialize in large measure the attempt to support normal operative sequences, the research of a creation breaking the daily cycle of positionings in space" (100).

Passion of Space and Time, Technical Tendency, Rhythm

There exists a pathology of the place, a passion for finitude, for intuiting corporeity, which Hölderlin reinvestigates poetically as the experience of the cracking and the receding of the divine. It is the pathology of default that no program can correct, since any program is, on the contrary, its expression—and this is why in suspending, it will in turn be suspended. In this default, time and space are constructed as articulation of the body and of programs that is an "obsession" with place:

> As seen by animals, or by beings fundamentally different from us, man appears to be obsessed by time and space. . . . The material conquest of geographic, and then cosmic, space, the nibbling away at time through speed and medical research, weave themselves through everyday life; speculations on astronomy and light, on metrology and atomic physics surround his philosophic and scientific dreams; the conquest of eternity and the heavenly spheres feed his spiritual dreams. His great effort for thousands of years has been to organize time and space with rhythm, calendar, architecture. . . . And if he retreats to the desert to quiet himself in contemplation, it is to tear himself out of his "century," that is, at once from the time and space in which the familiar rhythms of life are set out. (Leroi-Gourhan 1975, 2: 106)

Once torn away, "man" merely rediscovers time and space, but now as the dedicated locality or site of the "improbable." Figurative aesthetics precisely express the improbable experience of undetermined default, and if there is an originary connection between the functional and the figurative, a play of form and matter, that would mean that style and the ever-present technical tendency are indissociable, as the programmatic articulation of current functionality and dated already-there, even if

> the relation of function to form is in reality of a different order than that of form to decoration; for the animal, as for the human, the nonfunctional

> envelope is made out of survivals, of the marks of a phyletic (*sic*(origin, for the one, to the past of the species; for the other, to the ethnic past. That the decoration on the butterfly's wing had a mimetic value is of a completely different order than the adequacy of the wing for flight; this last is reducible to mechanical formulas validated by the laws of physics, the spots on the wing belong to the ever-changing domain of style. . . . Human decoration offers only a confirmation of the constant nature of the replacement of the species-orientation by ethnicity. (122)

Thus, following Lacan's conception of pigeon gonad and cricket gregariousness, style is rooted in animality itself, in a relation with reproductive erotics, an erotics articulated on a programmatics imprinted by the technical tendency on the dynamism of the *what*—and on the "mirror stages" it engenders—to the extent that

> the mass of creatures and objects are balanced in a very complex play: (1) of the evolution of each function toward satisfactory forms, (2) of the compromises between the different functions, which maintain forms to a more or less elevated degree of approximation, (3) of the superstructures inherited from the biological or ethnic past that are translated by "decorative" formulas. Functional aesthetic analysis is thus most frequently only the measure of functional approximation. (122)

And to the degree that the history of epiphylogenetic supports—technical objects in general—is also that of the *imago*'s construction, this approximation is the avenue by which the *pleasure principle* and the *reality principle* are articulated.

If the body's instrumentalization framing all finite experience of space and time is their "domestication," it has today developed into their mystification: "currently, individuals are impregnated, conditioned by a rhythmicity that has reached the state of a nearly total machinization (more than a humanization). The crisis of figuralism is the corollary of machinism's influence, and the following chapters will address with numerous examples the problem of the survival of a demythified time and space" (137), which is to say a time and space detemporalized and deterritorialized—a crisis (a *decision*) of différance qua temporalization and spacing. But the industrial instrumentalization of territory is only the conclusion of an originary instrumentation of space, and it is on this basis that the constitution of the associated media discovered by Simondon can be understood: with urbanization,

> the rhythm of cadences and of regularized intervals took the place of the chaotic rhythmicity of the natural world and became the principal element of human socialization, the very image of social inclusion, to the point where a triumphant society has nothing more for a framework than a grid of cities and roads within which time orders the movement of individuals. (142)

Speed, Programs, Rhythm

It is *rhythm* that marks the implementing of instrumentalization qua *grammē of speed*, before its decomposition into abstract time and space. Since rhythm is conditioned by programs, issues of speed and program are indissociable: "the separation of space and time is a purely technical or scientific convention, and when one says that Moscow is a three-and-a-half-hour flight from Paris, one acknowledges a much richer reality than that of an allusion to the 2,500 kilometers separating them" (Leroi-Gourhan 1975, 2: 130).[6] The articulation of programs consists of heterogeneous rhythms—cosmo-geographic, physiological, and stylistic—made to cohere:

> The natural world offers little more, as regular rhythms, than that of the stars, the seasons and days, of body functions and the heartbeat, all of which, to various degrees, prioritize the notion of time over that of space. Superimposed on these given rhythms is the dynamic image of rhythm created by humans and worked into gestures and vocal emissions, and then finally into graphic traces fixed by hand on stone or gold.

This superimposition onto cosmic programs, which is also what suspends their reification, is a paramount principle of a decontextualization aiming to reach its goal of the de-realization of space and time; at this point, Leroi-Gourhan introduces a description of an industrial "real time": exteriorization moving toward "accelerated improvements, not of the individual as such, but of the individual as an element of the social super-organism," and equally, as a consequence, exteriorization of time's becoming

> the grid on which individuals are blocked the moment the relational system reduces the delay of transmission into hours, then minutes, and finally seconds. . . . The individual functions like a cell, an element of the collective program, in a network of signals that not only control his gestures and the process of his effective thought, but which also control his right to absence, that is, to his rest or leisure time. . . . Space then exists only as a function of

> the requirements of time. Socialized time implies a humanized space, integrally symbolic, such that day and night take place in cities at fixed hours in which winter and summer are reduced to averaged proportions, and in which the relations between individuals and their place of activity are instantaneous. (131)

Habitat, Technical Tendency, Decommunitization

Habitat, as instrumental, subject to the technical tendency, arises from functional aesthetics:

> The organization of inhabited space is not only a technical commodity but, in the same way as is language, the symbolic expression of a global human behavior. . . . Habit answers a triple need: to create an environment that is technically effective, to ensure that the social system has a framework, and to provide an order, emanating from a particular point, for the surrounding universe. The first of these properties arises from the functional aesthetic . . . : all habitat is obviously an instrument and as a result is dependent on the laws of the evolution of the connection between function and form. (Leroi-Gourhan 1975, 2: 150)

At their inception, the city and the connection to space are programmatically (dis)integrated: territorialization is also always deterritorialization. This can only be discovered through the generalizing of the telecommunication techniques that will produce différant analogic and numeric identities, and to live contemporary technics today is less about the structuring of territory than it is about deterritorialization:

> Society's technical operation, since the middle of the nineteenth century, has been on a scale of distances disproportionate to the orbit in which man had always found his functional equilibrium. The hunting territory of the Magdalenian, the area of dispersion of the laborer's fields, the rounds of the baker or the rural postman, the deliveries of the urban trader all designated zones of personal gravitation . . . which have been . . . more and more clearly cantilevered against the dimensions of the universe of railroads, telegraph, and telephone. (181)

Urban time is an industrial programmatics that has now achieved the industrialization of memory from which new orthotheses have emerged as

the continuation of a prosthetic production that defines the already-there, but in which différance appears to be able, if not to be erased, at least to be displaced out of the traditionally individualized *who*:

> The infiltration of urban time . . . has now reached the very detail of the days through the normalizing of time to radiophonic and televisual rhythms. A superhumanized time and space would correspond to the ideally functioning synchrony of all specialized individuals, each in his function and his space,

and in the industrialization of memory, collective participation loses to the production and full *experience* of symbols: it presupposes the specialization of this production yet has today simultaneously embarked on the ultimate stage of exteriorization: the imaginary. What *schematization* (the activity of the "transcendental imagination") is still possible in such conditions? This is the very question of the *who?* within the occultation of différance.

Before the imaginary's exteriorization, the symbolic is constituted through direct participation of an entire group in figurative manifestations, and if "in modern societies a separation has gradually been established between really lived and figured experience, one should not confuse a ball and a ballet, or a mass at Notre Dame and the Mystery of the Passion in the same place . . . ; figuration appeared . . . initially, indissociable from the social manifestations that maintain ethnic permanence" (196–97), and to this form of community, resting on a symbolic communitization that Husserl forged into a scientific principle, and that through skilful specialization had already been displaced to a communitization through myth or ritual figuration, following a decommunitization through exteriorization of the imaginary's suspension of all forms of direct participation. We shall see this issue again in analyzing analogic and numeric syntheses—precisely as it affects Husserlian ideality. Such a decommunitization is also that of love and of new conditions for species reproduction (but it is precisely the species that might disappear through the new reproductive conditions it has produced), which link différant analogical, numerical, and *biological* identities:

> One might ask if a new exteriorization is not in progress, which would be that of social symbolism. . . . We are still fully surviving, and the city worker still leaves his essential schedule to attend a match, to fish, to watch a parade: he still has a restricted life of relations, but can participate in social activities;

> however, his direct relations outside essential circle are increasingly localized in adolescence and the pre-conjugal period, in which direct participation is necessary to collective survival. Unless he reaches the point to which the domestic animals best adapted to productivity have come, the point of artificial insemination, it seems for the moment that a minimum of social aesthetics will continue to surround the period of sexual maturation. (197)

Displacement's correlate is a symbolic delegation of heroism, giving rise to a new "culture of death" (such a heroism is only a historical figure of historicity, survival (*la sur-vie*(, a deeper figure): "man no longer plays the active role of hero of his own ethnic adventure, but watches the play of certain conventional surrogates in order to satisfy his natural need to belong" (197).

From Mythogram to Orthogram, Speed, and Thought

Memory's industrialization assumes the specialization of symbol producers and a consumerism[7] that, as we shall see, is only made possible through the appearance of différant analogical and numerical identities within their unique instrumentalities relative to literal synthesis. In emphasizing that a return to the mythogram coincides with a generalized alphabetization, Leroi-Gourhan sees the destiny of thought in what has subsequently been dubbed *hypertext*.

If writing "has only . . . touched a tiny statistical minority of humanity, up to the current century," despite having determined the present stage of global technoscientific development,

> the complete dependence of mental activity on the linearity of writing is, for Homo sapiens, a promise that can only be realized by a minority with specific aptitudes; for most humans, . . . application of thought to a line of even very concrete text requires the restoration of now-exhausted images and the mythogram, in the form of illustrations, to recapture the readings of the nineteenth century, as alphabetization spread through the various classes. . . . Radio and television, along with the cinema, have completed this return to oral literature and to visual information, without passing through any imaginary forms. (Leroi-Gourhan 1975, 2: 197)

Différant analogic identities are post-literal operators smuggling memorization out of linearity, while engendering the imaginary's exteriorization

process. But this is not simply be a matter of the delayed reappearance of mythograms, but of the creation of orthograms.

Such a creation occurred when writing "was constituted, over millennia, independently of its role as the preserver of collective memory and through its unfolding in a single dimension, the analytical instrument for the appearance of philosophical and scientific thought" (197) which was able to control the becoming-technical, when it became "modern technics." In electronic technologies, textuality, which is subject to différant numeric identities, is constructed in a new modality of the already-there; furthermore,

> the preservation of thought can now be conceived of outside of books, which maintain their advantage of easy and quick use for a very short time. A vast "magnetotech" of electronic works will in the near future deliver pre-selected and instantaneously recalled information. . . . It is certain that if some procedure were to permit the availability of books such that the contents of various chapters could be immediately available, authors and their readers would be considerably advantaged. . . . Such new forms . . . will compare to the old ones as steel did to flint, not as an instrument with a better "edge," but as much handier. (260–62)

Which is to say, much more rapid. If thought is the experience of the open, that is, of time as indetermination concealed within the essential failure of the already-there, then it is a "waste of time" as the non-determination of time; as Italo Calvino says, "if the economy of time is a good thing, it is because the more we save time, the more of it we will be given to waste" (Calvino 1987 [1980]). To be able to waste time, one must have it: this requires nobility, power, expenditure without reserve or calculation. But calculation is required to dispense with calculation. The alphabet is already just such a machine for calculating, accelerating, and equally, as we have already seen, differentiating. Mental speed, which is of a different nature from instrumental speed (alphabetic or numeric) nevertheless absolutely proceeds from it.

The New Gap

Leroi-Gourhan's *Le mémoire et les rythmes* systematically lays out memory's fundamental dynamics and their critical history, in which the exteriorization process, the technical tendency, and aesthetics qua dynamic of

identification as much as convergent suspension, and in which the concept of the program allows for the articulation of corporeal and symbolic rhythms onto cosmic programs such as planetary and celestial rotations that make up the programmatic calendar, underlie the local experience of the indeterminate, and open onto a becoming-rational of spatiotemporality, first as astronomy, then as geometry, finally resulting in the exteriorization of the nervous system and the imaginary. This is always a matter of articulating one level upon another: physiological on cosmic, functional on physiological, symbolic on functional, figurative on symbolic—layerings that are not sequential but rather constituted, and that function within the sphere of their own articulation, in which salient stylistic idioms arise.

Memory's three levels are programmatic, that is, grammars. The fourth memory, which appears autonomously very late on as the automatic, programmable machine, is the grammatical support. In fact, this ground was already the basic condition for all preceding grammars. But when, becoming machinic, it achieves its own dynamic, it appears to be constituted as an autonomous memory layer—which is an illusion.

The three levels are never independent, any more than are Aristotle's vegetative, sensitive, and noetic souls, in which vegetativity and sensitivity can be found within the noetic soul and the vegetative in the sensitive: and what is "found," suspended in its initial reification but not effaced, is thus the in-itself (*en-soi*(of what is new, while this "new" is its for-itself (*pour-soi*((Hegel 1990 (1837(, 569).

All of this has only been conceivable since the epiphylogenetic rupture, and even if it is never an animal/human opposition, any risk of confusing them must be avoided. An ethnology reducing human existence to animal behaviors is no solution, nor is any simple technological mechanism: the technical tendency is nothing without the temporalization and the idiom—which are nothing without it; the history of this process is one of negotiation.

Today the question of the *qui?* without which there is no idiom, remains. Here it is a matter of thinking the conditions of a social differentiation and a technical evolution no longer through a contextual differentiation within a maieutics, but through one of ethnicities and idioms. But the becoming-technical-ethical in which the idiomatic is essential nonetheless follows a suspension of ethnic differences themselves, at least when they remain traditionally rooted in a particular territory. Are idiomatic

differences that are not simply nomadic (which is a privative form of territorialization) but essentially a-territorial—with all the consequences that entails, notably the destruction of contextuality—even imaginable? It seems that contemporary technics initiated the opening to another world, emerging in and as a new gap, a very large gap as required for the making of an "epoch," since in the final analysis, speed of development appears to be central to a humanity that is essentially a latecomer:

> Evolution has entered a new stage, that of the brain's exteriorization, and from the strictly technical point of view, this mutation has already been made. . . . Compression of time and distances, the elevating of the rhythms of action, nonadaptation to carbon monoxide and to industrial toxins, radioactive permeability, all pose the curious problem of humanity's physical adequation to the milieu that has long been its. (Leroi-Gourhan 1975, 2: 570)

It appears that "only society clearly (profited(from progress," as if humanity as a species required the disappearance of the individual:

> The individual is already an obsolete organism, useful . . . but left in the background, infrastructure of a humanity in which "evolution" is no longer interested. (57–58).

From mythogram to orthogram, being is installed and unfolds qua program; this programmatology is the reification of grammatology, grammatology *in its effects*, the effecting of différance qua history of the supplement—and qua effacement, as inscription that effaces by overprinting.

The *who*—*Dasein*—is not the *I*. The *I* is a historical figure of a comprehension that *Dasein* has of its existence, linked to a programmatic state of the *what*. The *I*'s alterity, which is more profoundly that of a *we* that the *I* always already is itself, is still more profoundly the play of programmatic suspensions organized by the organizing of the inorganic through the technical tendency and the repetition liberating it while redoubling it; and this constitutes epiphylogenetic development's reification. Repetition redoubles and "appropriates" the effects of a technical tendency that is already realized, as already there, beforehand; through its redoubling, it frees new, unrealized, possibilities of the tendency, which exercises constant pressure—since the default of origin cannot be corrected.

The technical tendency's reification is the objectifying of a remembered synthesis. It occurs by epochs; that I, by suspension of dominant programs corresponding to rhythmic stabilities articulated at specific socio-

ethnic and individual levels. The operation of epokhal redoubling (the addition of a new programmatic level partially suspending previous levels' effectiveness) is a passive synthesis; it is also the genesis of the *what* in general. The second epokhal redoubling, an "appropriation" by the *who* of the first redoubling, is an "active" synthesis. But we must use these quotation marks when referring to appropriation and activity, insofar as this redoubling of redoubling is always already in the process of clearing a new path to the technical tendency and to a new stage of passive synthetization.

The redoubling to come is a matter of reconstituting a directional grid (*cardinalité*(beyond the Orient and the Occident.

§ 3 The Industrialization of Memory

The Industrial Synthesis of Retentional Finitude

Memory is objectified when it is technically synthesized. The question, then, is: what is the passive synthetization characteristic of the *what* of contemporary technics, as well as of the *who* that *we* are?

There is passive synthesis because there is retentional finitude. In the age of analogic, numeric, and biological syntheses, retentional finitude is implemented economically, becoming the privileged object of industrial investment: the economic imperative has the initiative of its reification. The first consequence of this is the hegemonic realization of apprehended time qua calculation.

The actual genesis of différant analogic and numeric identities took place in the nineteenth century, when it became obvious that the paramount issue facing society was mastery of information through the conquest of speed. This was compounded in the latter twentieth century by the discovery that the notion of information would explicitly order the post-World War II *epistēmē*—positively, as in the case of the cognitive sciences, and negatively, as when Heidegger asserted the primacy of cybernetics as the completion of metaphysics.

Consequently, an "objective deconstruction" of the *who* qua subjectivity begins. Yet where the informational paradigm dominates in its positive form, the fact that a deconstruction is required—the deconstruction of the *who*—is profoundly ignored: this positive paradigm is closed to the *epistēmē*'s epokhality as well as to the *who*'s temporality. Time is not seen as being an issue; it is merely one element addressed by the new logics,

within the larger question of the automatic resolution of the problems of artificial intelligence and cognition, both being more advanced domains of the nervous system's exteriorization.

And the nervous system's exteriorization marks a new epoch of tertiary memory—of epiphylogenesis—made necessary by the accumulation of knowledge: the new epoch consists of a delegation of the *who*'s orientation in its world-historiality, which anticipates the operation of the différant numeric identities. This exteriorization of the nervous system and the imagination marks the end of ethnic/technical maieutics.

In *The Fault of Epimetheus*, we also saw, through Bertrand Gille, that the thermodynamic revolution brought about the mobilization of rapidly decontextualizable capital; in order for that to occur, it was first necessary to constitute a *network* of stock exchanges as the infrastructure of information. This economico-informational imperative then catalyzed the genesis of analogic and numeric syntheses, converging with possibilities newly opened up by the technical tendency. From this resulted a new conception of value and thus of the funds constituting collective memory qua patrimony. Memory, as patrimonial capital required as part of a political imperative, thus centrally becomes commercial capital. Value, as measured through the concept of information and consequently conceived of as calculable, ascribed to the determination of the undetermined, now conflicts with the idea of value defined as knowledge qua the welcoming of the new and opening of the undetermined to the improbable.

If, in the course of the maieutics of technics and ethnicity, programs of the everyday already-there integrating both bodily programs and the dynamic of the *what* give rise both to a calendarization and a spatiality characteristic of the territorial community, then the development of information industries qua memory industries suspends them in what Virilio calls the false-day. This marks a different relationship of space and time, a different synthesis, and an entirely new question of intuition, leaving the "body proper" behind and investing in industries of the visionic, of telepresence, and of virtual reality.

Prosthetization impacts what Kant in *The Critique of Pure Reason* calls the syntheses of apprehension, reproduction, and recognition. But this impact is possible today only because it is originary. For epokhal double redoubling to take place, this must be recognized.

The initial effect of the imagination's exteriorization is the setting up of media as programmatic industries. Industries of information and of

programs (together forming the communications industry) are the concretization of the nervous system's and the imagination's exteriorization, and (along with the technical interiorization at work in genetic substrata) constitute the industrialization of memory at all of its levels.

Memory's industrialization exploits all available supports, the technological tendency invading all materials (including the organic), and for this reason one must speak of a différant biological identity investing and synthesizing the somatic and germinative underpinnings of human life, which are no longer an exteriorization only through the organizing of the inorganic but also through the *dis*organization of the organic in order to reorganize it—and in this sense, it is equally a re-interiorization of human being's technical exteriority. What's more, as in the case of the analogic and the numeric, we shall see the implementation of a generalized performativity that shows evidence of problems of a gravity and difficulty that are on an altogether different scale from the already-challenging risks with which humanity has ever before been confronted. It is no longer just a question of having to abandon the modifier "sapiens" after "Homo"; now the title "Homo" itself is in question—and even anterior to that, *zōon* itself.

Succeeding the participatory, ethnic aesthetic, the industrial aesthetic throws the producers and the consumers of figures, images, and symbols into conflict, creating a dis-communication that manifests itself as a crisis in any sense of communal sharing though active ethnic solidarities have not yet been replaced by technical forms; this results from the technical specificity—which are perhaps provisional—of new différant identities.

All support media so invested answer to the requirements of the new organizational forms of the already-there *qua* tertiary memory, resulting in a deviation from linear thinking and an uprooting from human rhythms that currently tend to integrate the analogic, numeric, and biological, thus opening to an era of generalized dynamic media, all characterized by speed. This manipulated, synthetic biological medium is itself nothing other than an artificially accelerated evolution, in which the very nature of evolution is changed.

If temporalization—what Heidegger thought of as schematism and what we have here conceived of as originarily prostheticity—may be thought of as retentional finitude, industrial investment in memory is then a taking charge of the mechanisms of retention that, in negotiation with the technical tendency, produce the technical characteristics of

new, différant identities. And these identities, as we have seen in Barthes and Bottéro, constitute the supplemental forms of the ecstatico-temporal structure implicated in retentional finitude. New forms of temporal ecstasy whose primary effect is a profound transformation of the conditions of reification or event-ization (*événementialisation*(appear alongside these new différant identities. "Real-time" and "direct" or "live" [transmission] are this transformation's operators.

Event-ization means *selection*. All events are inscribed in a memory, and event-ization is memory's functioning. The issue, then, has to do with the criteria of selection (and beyond that, with the organization of a memory that has become an informational reserve (*stock*(—such as data, sperm, or organ banks, or genetic sequences). Very generally, memory's criteria of selection become possible simultaneously through the technical tendency's determining the prosthetic possibilities of access and orientation, and through "understanding that being has being," which itself results from these same possibilities in "averaged" form. In other words, these criteria become possible through association with an undetermined that generates the possibilities for a new technical tendency investing the already-there. When selection becomes industrial, it integrates a vast array of equipment controlled by economically determined calculations that thus from the very beginning attempt to dissolve the undetermined. But because this industrialization ends in the development of différant identities, such a dissolution is not possible. In other words, two indissoluble tendencies confront each other in this transformation. The future consists of their negotiation.

Within this horizon, the question of the *who?* is one of a politics of memory encountering the resistance of an economic imperative. But the very nature of these political questions will be altered.

We have seen that deterritorialization, which has always already begun from the first moment of exteriorization, consisted of the development of networks. Industrial retentional finitude requires networks of a new sort, one tending to eliminate delays and distances, insofar as information value is correlative to the space and time of its diffusion; this is why contemporary deterritorialization aims at the suspension of ethnic calendarity while "development" is essentially that of speed.

In order to understand the genesis of new, différant identities, one must first understand how new networks appear and how they are characterized,

allowing for the release of the concept of information as merchandise. Before examining the historic conditions of such a genesis, we must take time to examine a particular moment at the highest levels of the state in France at the end of 1960s, and the stakes involved in the development of the computer and computer science.

Informatics

Informatics is the instrumental and industrial concretization of cybernetics,[1] of which Heidegger, who connected its arrival with a possibility that had previously been reserved for thought, wrote in 1962: "it is not necessary to be a prophet to recognize that in their systematic work the modern sciences will quickly be determined and directed by the new foundational science, cybernetics" (Heidegger 1990b, 116).

In 1977, Valéry Giscard d'Estaing entrusted Simon Nora and Alain Minc with the job of thinking through the impact of informatics on French society in all its dimensions. The report they submitted in 1978 was a veritable consciousness-raising with regard to the new technology's revolutionary nature, from political, economic, strategic, and cultural perspectives.[2]

The word *informatique* ["informatics": i.e., data processing, computing] was first coined in 1962 by Philippe Dreyfus, who combined the concepts of information and the automatic. And yet we should not be satisfied with this original definition; it now needs to be expanded, as inspired by Maurice Daumas, for whom *informatics*

> designates the handling, and eventually the transmission, of input peripherals to output peripherals in any computer, of information through technical means. . . .
>
> The question arises of whether the term "informatic" will not in a few decades' time have a wider meaning as a result of the fact that electronic technology will extend into a less restricted field.
>
> If it then becomes a question of data entry, the processing and diffusion of information understood as signals occurring in other parts of the network than in the computer, why should the term "informatic" not be assigned to the entirety of this complex? (Daumas 1979, 260)

Informatics thus designates the industrial products of information in general, and thus also those of what are called "the media"—not just *numeric* electronic systems but *analogic* systems as well.[3]

Consequently, the principal concepts common to informatics in general, understood in this extended sense, are information, opto-electronics, the signal, and the network.

Informatics will here define all that deals with and transmits information in all its forms, which is to say in addition all analogic and numeric syntheses ("informatics" usually refers only to the latter).

For Daumas, the link between information and electricity is essential, and takes in informatics' historical, technical, military, and commercial dimensions. The concept of information, as we use it today, was formed in the nineteenth century along with the electronic communications network. The telegraph was its first form of life. The French stock market next discovered its current sense—in 1836: having declared that variations in Bordeaux's property values were far behind those of Paris, Bordeaux investors bribed a functionary to let them use (to their advantage) a Chappe "telegraph" line[4] between the two financial markets. They rapidly became very rich—at the price of the speculative unbalancing of the Bordeaux stock exchange (all speculation being an unbalancing). This "affair" (1837), which led to lawsuits and might be seen as one of the initiatory aspects of the monopolization of telecommunications, shows us that information *is* information only insofar as everyone does not possess it, that it can itself become a commercial object, and that its value correlates with the time and place of its diffusion: it is of value to the degree that it is diffused.

Our current concept of information use is that of an information industry, understood as the broadcast signal of a message whose time and space of diffusion is controlled through a network, thus becoming merchandise, and whose value is conditioned by the speed of transmission.

Informatics, as Daumas understood it, is the industrial exploitation of information's value, made possible by the development of opto-electronic technologies as elements of the mastery of speed through the stabilizing, processing, and transmission of signals that are recordable and storable in electronic memory, making possible the control of information's circulation through the establishing of networks.

Insofar as these electronic or opto-electronic media are the common denominator, it is appropriate to extend the concept of information to biotechnologies—as well as to other forms of technology using genetic information. On the other hand, it might be claimed that informatics, in its larger sense, and biotechnologies currently form the very essence of the development of the memory industries. The bionic techniques of

computation (the biological *computer*) are still not sufficiently theoretically and industrially advanced to command the field.

Telematics

A true industrial production of the *social* comes into existence, in real time, from the moment that information is disseminated, penetrates all layers of a society, and fuses together numeric and analogic techniques. Nora and Minc call this integration *telematics*, a word that should be understood in its narrowest form as "on-line information"; I use it below in the larger sense of network integration.

Information can become the initial matter of industrial activity in that it is a temporary state of exploitable matter insofar as the succession of its states—its plasticity—is controllable on infinitesimal time scales. This mastering of plasticity in time has a direct effect on the link to time in general. Upsetting the relation of the material and the immaterial, that is, between ends and means, it calls for a critique of hylomorphic design. From the nineteenth century to the twentieth, from the iron and steel industries and the "heavy" technologies to informatics as technologies of the "immaterial," industry—as the formulation of the technical tendency—has invested in an altered concept of matter, thus altering "the understanding that being has being."

Nora and Minc's *Computerization of Society* is an evaluation of this alteration on the level of national and international social categories, and understands it from the outset as the chief element of an unprecedented crisis of civilization: "the increasing informatization of society is a key issue in this crisis" (Nora and Minc 1981 (1978(, 1). This informatization, which framed Nora and Minc's original 1977–78 study, has continued ever since.

This crisis, which was triggered by the 1973 "oil crisis," is first and foremost that of an outdated industrial system and the society from which it sprang, which survives to the present day. It must properly be seen as a "crisis of civilization" that "implicated, over a long time, an elitist or democratic distribution of powers, that is, ultimately of knowledge and memory"; informatics, having become telematic, is the central vehicle for this distribution. That the becoming-telematic is absolutely essential to its critical, differential, and decisive nature means that the simultaneous,

conjoint development of telecommunications and informatics networks is essential to informatization.

All profound social transformations produced through technics inevitably encounter obstacles: the technical system's evolution, which has always had consequences in other social systems, gives rise to various resistances, "perhaps the simultaneous arising of a crisis and the means of solving it." However, the current transformation is of an exceptional magnitude:

> The "computer revolution" will have wider consequences. The computer is not the only technological innovation of recent years, but it does constitute the common factor that speeds the development of all the others. Above all, insofar as it is responsible for an upheaval in the processing and storage of data, it will alter the entire nervous system of social organization.
>
> Until fairly recently, data processing was expensive, unreliable, and esoteric. . . . Nowadays, a multitude of small, powerful, and inexpensive machines are on the market. . . . This transformation can be traced to two technological advances . . . : decreasing size and vastly expanding networks. (Nora and Minc 1981 (1978(, 3)

Telematics qua networking is the key to this transformation:

> This increasing interconnection between computers and telecommunications—telematics—opens radically new horizons. Means of communication have not been structuring communities only in our own day. Roads, railways, and electricity are so many stages along the way from the family to the local, national, and multinational organization.
>
> This growing connectivity of computers and telecommunications—what we have called the "telematic"—opens a radically new horizon. It is certainly nothing new that communication structures communities: roads, railroads, electricity, many stages of family, neighborhood, national, and multinational organization.
>
> Unlike electricity, 'telematics' will not transmit an inert current, but will convey information, i.e. power. . . . Telematics will not only be an additional network but a different one as well, blending pictures, sounds, and memories and transforming the pattern of our culture. (4)

The concepts of "information" and "network" thus define the "informatic revolution."

Even if we have never actually had simple "means" of communication, however, we would still need to relativize the definition of informatics without effacing it: the effort here has centrally been to show that

informatics is developed on the epiphylogenetic basis of fundamentally programmatic memories.

Still, for Nora and Minc contemporary technics operates within the becoming-social in an entirely new way, causing an unprecedented rupture in the greater history of technics: telematics, which is at the heart of all political and economic deliberations and decisions and all investment and employment issues, is now used to modify all power relations, based on a new kind of information-sharing, basically "changing the stakes of sovereignty." This is no longer just a question of developing a national informatics industry; what is now required is

> to take into account the renewal of the IBM challenge. Once a manufacturer of machines, now a telecommunications administrator, IBM is following a strategy that will enable it to set up a communications network and to control it. When it does, it will encroach upon a traditional sphere of government power, communications. In the absence of a suitable policy, alliances will develop that involve the administrator of the network and the American data banks, to which it will facilitate access. (6)

The horizon of political decisions becomes deterritorialization, with its mass of difficulties relating, initially, to the fact that the previous idea of the political rested on a territorial concept of sovereignty. Informatic technology, pervading all of society through its inherent capillarity, has an indissoluble effect on all powers (political and economic), knowledge systems (theoretical and practical), and memory (of the culture as a whole, its entire social patrimony, all its expertise, all its skills and talents). As a result it mandates a bold state politics in each of these respects, at the level of both superstructures and infrastructures, which is all the more delicate when these memory systems are matters of industrial production but are no longer produced within state territory (when the state had previously been responsible for protecting the *power* and *spirit* of the people as a "national treasure"); it becomes even more delicate when the requisite transformation occurs within the context of general unease, anxiety, and even contradictory fantasies.[5] This is a period of a new type of conflict, revealing itself as the chief consequence of informatization: henceforth these new conflicts will in essence be cultural. Furthermore, now the question is far less one of the state's embarking on the writing up and production of possible resultant outcomes, prospective scenaria, as would previously have been the case in matters of planning, than of investigating—and

making "civil society" investigate—ways in which it might now be possible to begin development of a project rather than a program.[6] National identity itself is at stake here, and this means that the matter is an urgent one for its future—its relationship to time. The state must therefore have an even more powerful capacity to invent itself in this new context, at the cost of abandoning an important part of its traditional administrative methodologies.

As an integration of economic and political issues in a more limited sense, what is at stake is the technological revolution as cultural revolution. Nora and Minc identify four problematic points of focus here:

- The establishment of a satellite network for live or real-time transmissions
- The establishment of *standards*, of law and of *sovereignty*, and their private and public consequences
- The industrialization of *memory* and *language*, *that is, of knowledge*, and specification of information as merchandise
- The impact of informatics on the mechanisms of *power* in relation to *writing*

Networks, Powers, Knowledges

The most significant phenomenon resultant from this transformation is the appearance "of real-time networks" broadcasting not only the data required to fuel numeric information-processing centers, but also integrating analogic data accessible to the entire public. Telematics provides the real possibility of the transmission of all types of data immediately and globally through its linkage to satellite transmission, the final step in a transformation begun in 1866 with the first transatlantic cable between Brest and New York.

Satellites "able to cover whole countries and continents at the same rate [as land-based networks]" bring telematic networks to a global scale, conveying "all types of messages: voice, data, images." Not being as subject to the "shadow zones" of radio-relay systems, they homogenize or equalize space prior to information, and "reduce to merely symbolic terms the frontiers that today constitute the borderlines between national organisms and telecommunications." In overcoming the limitations of earthbound

networks, satellite transmission wrests control of transmission systems from all territorial powers, opening a communication space dominated by those with the most efficient technologies beyond all the constraints of national laws.

This technical and factual separation from national legislation translates into a battle of standards between multinational industrial groups whose administrative structure is not subject to territorial limitations: the law itself must be reassessed because of the fact—because of the power of the techno-logical emancipated from any specific location [*territoire*] and the fact of the state's loss of a monopoly over telecommunications—all of which was made official in the deregulation begun in 1998 and continuing today. Imposition of technological standards simultaneously entails the imposition of telecommunications hardware, processing programs, and the data they process: a complex of "high-performance" memory making the old local mnemotechnical structures null and void. New linkages between private and public power are introduced. The state, formerly in control of communications infrastructures, must now negotiate with international industrial powers to try to preserve, less the existence of a national informatic industry, than its control over the telecommunications arena. Control over the very evolution of society itself is at stake: the state no longer has any guarantee of being its own master.

Industrialization of memory exists insofar as it becomes "information" in the limited sense employed in information theory, as merchandise whose value is correlated with its time and space of diffusion. It can thus be "re-opened," making all previous forms of memory, all of the already-there, into "raw material," such that general knowledge itself becomes information. Since information is "inseparable from its organization," mastery of the latter is mastery of information itself, informational organization determining the conditions of information access and selection. At the same time, organizational options are the framing mechanisms for information content, and if, during this first generation of informatics, the salient memories are principally those of public and private administrative spheres, in the longer term

> conflicts will predominantly be over cultural factors and where appropriating them will become the moving force of history.
>
> It is then that slowly but surely telematics will affect the major instruments of culture: language, in its relations with the individual, and even in its social

> function; and knowledge, as an extension of collective memory and as a tool for achieving the equality or discrimination of social groups. (Nora and Minc 1981 (1978(, 127–28)

These conclusions are taken up and analyzed in Jean-François Lyotard's *The Postmodern Condition*, in which he poses the question of knowledge's new nature, seeing it as entering a phase of mutation relative to a model that is now more than twenty-five centuries old. This mutation is brought about by language's new mode of being, as it is systematically invaded by the technosciences and ineluctably subjected, in its very essence as well as in its evolution, to technical communication vectors. The result will be a "powerful exteriorizing of knowledge relative to 'knowing,'" and, above all,

> knowledge is and will be produced in order to be sold, and it is and will be consumed in order to be developed in a new production: in both cases, the goal is exchange. Knowledge ceases to be an end in itself it loses its 'use value'. . . .
>
> Knowledge, in the form of an informational commodity indispensable to productive power is already, and will continue to be, a major—perhaps *the* major—stake in the worldwide competition for power. It is conceivable that the nation-states will one day fight for control of information, just as they battled in the past for control of territory, and afterwards for control of access to and exploitation of raw materials and cheap labor. (Lyotard 1984, 4, 5)

Thus there will be a struggle over two concepts of value, which are both relations to time, the one like the other nonetheless constituting all temporalization.

Informatics and Writing

The informatization of knowledge is only possible because informatics, as a technique for the recording, reading, and diffusion of information, is a kind of writing:

> As the Sumerians were writing the first hieroglyphs on wax tablets, they were living, probably without realizing it, through a decisive change for mankind: the appearance of writing. And yet it was going to change the world. At the present time, data processing is perhaps introducing a comparable phenomenon. The analogies are striking: extension of memory; proliferation and

> changes in information systems; possibly a change in the models of authority. The astonishing similarities may be far-fetched. The impotence of this transformation, however, remains incomprehensible to those who live through it, unless it is considered from Fabrice's viewpoint at Waterloo [in Stendhal's novel *The Charterhouse of Parma*]. (Lyotard 1984, 129)

Thinking this transformation means going to the very limit and, in the strictest sense, it would be impossible to measure its (un)predictability. This is precisely the structure of an *epimētheia*, and of a closure at the heart of Derrida's *Of Grammatology*, which he places very clearly within the context of the cybernetic evolution of language. A "deconstruction" is only possible and necessary separate from such a context. In Nora and Minc's work, we see the same concern inscribed within this distension that opens to techno-logical advances *and* to the constitutive delay of thought on its instrumental already-there—an instrumentality of the already-there that continues to be concealed, as constitutive forgetting, but providing all that remains to think: even a method is lacking: if data processing in the long run produces a decisive change in language and in knowledge, it will involve changes in thinking, in concepts, and in reasoning, which will slowly obliterate the tools used to forecast them. A careful analysis of orthographic writing and informatics demonstrates their common orthothetic character. If the orthographic orthothesis gives space to a working out of différance in which knowledge is seen as the historical epoch of "ontological difference," itself the dispenser of the *who*'s indeterminability, why then would the informatic orthothesis appear above all as the concealment of this indeterminability and thus even as the denaturing of knowledge and the subjugation of all evaluation to the economic imperative's hegemony?

Informatization is inherently of the written, which initially would have meant "the texts poorest in 'signifiers,'" but, through an extensive numeric apparatus, now alters the individual's relationship to knowledge and to language in the broadest sense, in a way comparable to the evolution produced by computers: "fifteen years ago, nobody would have imagined the proliferation of cheap devices available to everybody and essentially to students. Today, the question is no longer whether mental calculation is going to become less important but when it is going to disappear" (130). This is only one instance of the "exteriorizing of knowledge relative to 'knowing'" among many others: databases, systems of expertise, artificial intelligence; automatic orthographic editing, reading, writing, translation, design and manufacturing assisted by computers, informatic systems

to aid in decision-making, and so on—as well as assistance in the (re) orientation of thought itself, within the already-there. Informatics is a technique and a technicizing of language. The question of the relationship of technics to language that structured philosophy's relationship to sophistics appears in a new form: as the extreme classicism of a question that led us to conceive prostheticity as originary and occluded the traditional *logos/tekhnē* divide. Placed side by side and evaluated as mnemonic techniques, as being capable of producing co-equivalent consequences for society and culture, writing and informatics share a common grounding in issues much older than they are.

Writing is an exact formalization of memory, and it is as such that it brings about transformations of the already-there, and, through them, of the conditions of anticipation and connection between societies and their futures, of language (written language is no longer the same language), of knowledge (written knowledge becomes apodictically cumulative), of power (a written society becomes political in the strongest sense of "isonomia" and public law). Writing, whose science is grammar, thus also gives rise to rules of memory, which had been based on conditions of functioning, and nonetheless, by the sole fact of finding itself explicit and "exteriorized," is constructed relative to the entirely different parameters of a next synchrony and a new diachrony of language. Writing has an essential performativity as formalization of grammar rules. But informatics must equally be understood as a formalization technique of the already-there, and thus of the production of the rules governing memory. Producing *grammēs* and new programs in which they clarify the set of rules that previously could only operate in the shadows and implicitly, it opens a new era of grammar—and thus of différance.

It remains that knowledge, "informationalized," contrary to what occurred with the advent of writing, is placed in the direct service of a power that can no longer be understood from a political point of view, but as an economic power—this is what Lyotard calls "post-modernity":

> The cultural model of a society also depends on its memory, control of which largely conditions the hierarchy of power. Access to infinitely greater sources of information will entail basic changes and will affect the social structure by modifying the procedures for acquiring knowledge.
>
> With telematics, the storage of information changes in size and in nature. Storage in computers requires an organizational effort, based on both technical constraints and financial imperatives. The establishment of data banks is

> going to be the beginning of a rapid restructuring of knowledge, following patterns that now are difficult to define. The change will take place on the initiative of the sponsors of such banks, most probably in the United States. Therefore, criteria originating from the American cultural model will prevail. (131)

Accordingly, criteria for information selection and diffusion are measured relative to their plus-value, their degree of appreciation: any statement's value must be *calculable*. Yet if information value is tied to the time of its diffusion within a given system, that is, its speed, clearly knowledge is precisely what, as différance, absolutely contradicts any calculation of its value and of any anticipated experience of temporality. This would mean a conflict, perhaps an aporia—Lyotard would say a differend—of which the de-naturing of knowledge would be only one index.

In such a context, one with these "values," the transmission "from generation to generation" of a cultural patrimony basing its historial unity on its territorial unity would not be possible—it would be as if speed's effect would be to de-realize space and time as such. No one foresaw this outcome and its enormity more clearly than—and as early as—Heidegger. And no one more clearly and early on than Derrida reinscribed the radical necessity, a definitive gap, of its being presented as an absolute rupture with normality:

> The future can only be anticipated in the form of an absolute danger. It is that which breaks absolutely with constituted normality and can only be proclaimed, presented, as a sort of monstrosity.
>
> The future can only be anticipated in the form of absolute danger. This is what produces the absolute break with constituted normality and can thus be announced, presented, only as a monstrosity. (Derrida 1976 (1967(, 5)

The Analogico-Numeric Apparatus

Havas (now, appropriately enough, Vivendi Universal Publishing) first identified the ideal industrial device for the exploitation of information in 1834–35: it was history's first press agency, quickly taking advantage of the nascent (1835) electric telegraph network.

By correlating time and value as essentially merchandise, information determines the temporality proper to the industrial era of memory. Contemporary networks, as essential elements of the vast tool by which

saleable memory output became global and quotidian, and then permanent—with CNN and all its clones, France-Infos, satellite networks, and centralized numeric servers feeding the internationally interconnected stock market and its staffs' centralized computers—, all operating at the speed of light precisely because events and information are merchandise whose value is a function of time.

This massive diffusion assumes the industrial concentration of all means of production: the cost of a television image can only be justified through its diffusion to millions of viewers. Thus, a few agents for televised images of current events provide the vast majority of these images to broadcast networks worldwide. This has now reached the stage where only a very small number of producers of the raw material of memory (the agencies) make selections as to what is event-izable.

The result is the veritable planetary dimension of selection and diffusion, at the speed of light, of the industrial construction of the present. An event can only rise to the level of being an event, can only actually take place as an event, if it receives "coverage"; even if time cannot be totally reduced to artifice, it is always at least co-produced by the media. "Coverage" results from selection criteria determined by the production of *plus-value*. This kind of memory, as a permanent flood, conceals itself to the degree to which it is produced; "one piece of information chasing another," its basic principle is its own massive and immediate self-forgetting. My newspaper, which this morning cost one euro, will be worth nothing tomorrow because information's value is tied to its time of diffusion, and it is all the more a piece of information if it is *less* known. This is why press agencies devote all their efforts to reducing the time of both transmission and processing.

Each day Agence France Presse distributes to its clients the texts of dispatches selected from among thousands of (potential) events, worldwide. From the journalist on location to the editing and publication of a daily newspaper that takes up (or not) a particular story, passing it through the central desk, which classifies it for a particular division and assigns it an "urgency coefficient," the criteria of selection are aspects of marketability. A newspaper is a machine for the production of ready-made ideas, for "clichés."[7] The information must be "fresh,"[8] which is why the ideal, according to the press, would be the suppression of all delay in transmission. The explosion of the space shuttle *Challenger* during the *live* coverage of its 1986 launch became an event of major proportions for the Reagan

administration, which had organized a super-production of "placement" on the mission's success. The death of eight people in an extraordinarily dangerous undertaking of this kind would not be exceptional in itself. But these deaths, which were *covered live*, as they occurred, for the vast majority of the planet, were (potentially) a political catastrophe and a sensational tragedy. The event-ability of the event is thus inseparable from the media which, at the very least, "co-produced" it.[9] By the same token, the stock market crash of 1987 would have been inconceivable if one did not take into account the immediate global transmission, not only of financial information, but of the commentary that goes along with it and the profoundly irrational effects it can produce even when it can only be read and interpreted immediately—and when it is constructed entirely as a function of such a horizon.

The magnitude of difference such speed means to an event's value is enormous. After French troops entered Mexico City on 1 May, 1863, it took six weeks for the news to reach Paris; the event, which was an important one for the Empire in general and for Napoléon III in particular, did not have nearly the hoped-for impact: being more than thirty days old, the news was not *new* but already *history*, containing an unavoidable element of fiction. To the general public, "the Americas" then seemed so distant in both space and time that to the average person they were no more than a mythic land populated by savages. When the *Great Eastern* finished laying the first transatlantic cable in 1866, Europe effectively discovered a continent—and its stock market—which, for most Europeans, had been nothing but a dream. And was that not the beginning of the decline of the "Old World"? Had its seeming ascendancy not been revealed as depending on a *significant delay in transmission*?

But the most vivid picture of the newly essential role of the press and, at a deeper level, of information is provided by the Troppman case.[10] Following the discovery of eight murdered bodies in the Pantin woods outside of Paris, the *Petit Journal* announced that "a [sensational] story both *true* and *current*" (Palmer 1984, 30) was to appear day by day in its pages, a marked difference from other "sensational" stories that had hitherto appeared in newspapers only in serialized form. In the four months between the discovery of the crime in September 1869 and Troppman's execution by guillotine in January 1870, the entire case file on the crime having been scrutinized by the police, the judge—and, daily, by the *Petit Journal*, through public pressure—the *Journal*'s daily sales jumped from

350,000 to 600,000. The sensational pull of fresh news was—and is—the best argument for the saleability of information, which explains why "the press," now in its extended form throughout the media, is essentially a sensational press. (Sensation records a différance).

Information's "truth" is *light-time* [*le temps-lumière*].[11] This term essentially designates the transmission of information at the speed of light, with no delay, creating analogic and numeric orthotheses—while the literal orthothesis implies an essential delay between what might be called the event or its entry as data on the one hand and its reception or reading on the other. But it is at the point of data entry, as in its processing, that the analogically or numerically in-formed event submits to the logic of light-time. Access to network-vectors of industrial memory relies on the existence of means of input and output, also called interfaces or terminals. The first analogic, then numeric, machines did not have such instruments for entry from and output to a network: photographic and phonograph apparatuses are instruments for analogic input, not for transmission of data at a distance. However, advances in photographic techniques rapidly led to belinography,[12] then to advances in cinematography, which in turn led to the direct and then to on-line transmission of images, while the combining of the principles of telegraphy and phonograph resulted in the telephone, then in direct radio-diffusion. If the light-time network could remove the delay between the entry of an event as data and its reception by infinitesimally reducing transmission time, the analogic or numeric instrument for data entry also removes all delay between the event and its entry as data. Because "I project the present photograph's immobility upon the past shot, and it is this arrest which constitutes the pose" (Barthes 1982 (1980(, 78), all photography is a narcissistic and thanatological catastrophe comparable to the one that appears in the expression on Lewis Payne's face in his portrait—a transfer possible only because the instant when the photo is taken coincides with the instant of what is captured, opening the possibility of the conjunction of past and reality that constitutes the photographic *noēma*. This also means that it is not possible to photograph an event after it has happened. But it also results in what Barthes calls "certitude" and a "power of the photograph's authentication," an effect of the real (of presence) common to all analogic technologies, all of which possess a collective rapport with the past that can no longer be simply defined as historical.

Event-ization

Conjoining the effect of the real (of presence) in image capture, in which event and input of the event coincide in time, with the real-time or the live aspect of transmission, in which the captured event and reception of this input coincide equally and simultaneously, analogic and numeric technologies inaugurate a new collective as well as individual experience of time as a departure from historicity, if it is true that historicity relies on an idea of time that is essentially deferred; that is, on a constitutive opposition posited in principle (illusorily—but this illusion has very real effects) between a story line and what it reports.

The manufacture of time by a press agency is by no means simple, the current events industries' information not being satisfied with recording "what happens," since then everything that "happens" would have to be recorded, but "what happens" only happens in not being "everything," in being differentiated from everything. Information only has value as the result of a hierarchization of "what happens": in selecting what merits the name of "event," these industries co-produce, at the very least, access to "what happens" through giving it the status of event. Nothing "takes place" or "happens" except what is "covered." Thousands of (potential) events, at a minimum, happen without happening, take place without taking place, or take place without happening—and thus will not have taken place, will not have happened—but rather will go to their anonymous and improbable destinations.[13]

The preservation of memory, of the memorable (selection for inclusion in the memorizable, the retention of this memorable element, creates it as such) is always already also its elaboration: it is never a question of a simple story of "what happened," since what happened has only happened in not having completely happened; it is memorized only through its being forgotten, only in its being effaced; selection of what merits retention occurs in what should have been, and therefore also in anticipating, positively and negatively, what soon will have been able to happen (retention is always already protention).

What happens in the industrial manufacturing of the present, that is, in time, would consequently have nothing exceptional in its general structure: deferral, indiscernibility of the event and its story line. It is never possible, in fact, "to decide if there is an event, story, story of an event, or event of a story" (Derrida). If today one can say that the "media" "co-

produces" what happens, and in this sense produces it in (its) effect(s), and through this anticipates what is going to happen, this is still nothing new: it is the very law of memory that it precede itself and consequently that the present's past (including, as well, all the actions, decisions, facts, and events through which "one got here") does not remain behind it but "always already preceded" it—without determining it.

However, something absolutely new happens when the conditions of memorization, namely, the criteria of effacement, of selection, forgetting, retention-protention, anticipation—all concentrate in one piece of technico-industrial equipment whose final goal is the production of plus-value: that is, when the chief requirement of the hegemonic regulation of memory activity is time-saving, insofar as its capitalizable abstraction (money) is never more than credit assigned to the future, an advance. Industrial retention (of memory) is determined by the law of the audience as source of credit, in every sense of the word. This law, which is irresistible, *predetermines* the nature of events: the "actors" anticipate the conditions of their acts' recordability and act according to the constraints of this industrial façade of time. In this sense, the media are not satisfied with "co-producing" events but, more and more frequently, actually integrally produce them, in a veritable inversion by which the media recount daily life so forcefully that their "life story" seems not only to anticipate but ineluctably to precede—to determine—life itself.

This inability to distinguish facts from fabricated facticality,[14] which is also the inability to distinguish facts from entitlements (a distinction that is in fact also always impossible, and problematic, in law), constitutes the protentional force of the industrial fabrication of time, which is due to the structure of temporal rapture induced by analogic and numeric syntheses as they operate "in light-time." When memory is produced at a speed near that of light it is no longer possible, either in law or in fact, to distinguish an "event" from its "input" or its "input" from its "reception" or reading: these three moments coincide in a single spatiotemporal reality such that all delay, all distance, between them, is eliminated—but so is all locality, since locality is constructed from differentiation, like calendarity and spatiality, and differentiation is therefore, from the outset, what happens there. But if what happens *there* seems to tend to be the same everywhere, "locality" tends to become universally identical, that is, to disappear: no longer would decontextualization be solely that of the initial story, however distant globally, but that of its "reception," which

would thus be a tendency toward, purely and simply, the complete loss of context.

If a real distinction between story, event, story of event, and event of story—between event, input, and reception of output—is never possible and cannot be more than formal (its form is the law); if the event is never more than its captured data, and if these data *are never more than* their dissemination and reception, just as a text does not exist independently of its reading, and what *that* text says does not exist outside of the text or *before* its reading, as it were in history (i.e., in the literal recording of time), it can only appear as delay, an after-effect of the rift in the operation of a retentionality-protentionality, differentiating as différant, as differentiation, and as differing, collapsing the possibility of any localization as well as any law differentiable from "fact."

Retentional finitude requires a law, as criterion and criteriology, permitting the establishment of differences, hierarchies, and priorities. Such a law would apply to memory just as to physical space [*territoire*]. Just as territory only exists when it is crossed, memory exists only when it is recalled. One must find one's orientation in and to the already-there of memory just as one must find it in and to territory. And just as a map can never coincide with physical space "point by point," as its equivalent, its identical reproduction, just as "this Expanded Map [would be] useless" (Borges 1965, 198), bringing nothing *more* to an *orientation*, memory must reduce the memorizable in order for it to be memorable: in order to be oriented in the already-there of memory it is necessary to forget (it). A memory that would not forget would be like that of Funès (Borges 1962, 115), who cannot *leave* the present, can neither make it pass nor memorize it, nor even fully access the present: this would be a non-memory—a non-thought. Funès "was not quite capable of thought. To think is to forget differences, to generalize, to abstract. In Funès' super-charged world, there were only nearly immediate details" (115). Retentional finitude establishes reduced and simplified differences and hierarchies: it differentiates map from territory and fact from memory of fact—thus raising it to the status of an event—according with différance that renders the prosthetic state of its *what* accessible. The selection criteria are the effects of différance, which mark the epochs of the *what*. We shall have to return to this question of tertiary memory when we take up the Husserlian analysis of the temporal object. Current events, transmitted live, are an immediate past

making the present pass and are therefore an already-there; as Raymond Queneau says somewhere, television is "current events frozen in history."

"Real Time," Event, History

In *Camera Lucida* Roland Barthes refers to a photograph "representing a slave auction" that he cut out of a magazine, since lost, an image he does not show. He speaks of it at the same time he addresses the portrait of William Casby, "born a slave," who "certifies that slavery has existed . . . not by historical testimony but by a new, somehow experiential order of proof, although it is the past which is in question—a proof no longer merely induced" (Barthes 1982 [1980], 79–80). And regarding the photograph of the slave auction, he then adds: "There was a *certainty* that such a thing had existed: not a question of exactitude, but of reality: the historian was no longer the mediator, slavery was given without mediation, the fact was established *without method*" (80). The photo-graphic experience of time (of the past) is of a level of proof given through the intuition of a past we did not live but which does not require induction to access. The fact that an intuitional, immediate access, even when it is experienced through the mediation of a recording and thus from the past—or at least that a layer of a past that existed before the historicizing operation—does not mean that it is possible to describe what slavery was accurately without the historian's work of mediation. Nonetheless, experiencing the past through photographs inevitably calls up another aspect of historical thought—as *Geschichte* as much as *History*.[15] *Camera Lucida* presents one kind of historical break produced by photography, a break that results from the emergence of a new relation with "the past" seen as the reality that suspends the privileging of writing's traditional historical *access* to certifiability, verifiability, and sense of being true [*véritativité*]—and where, nevertheless, it would be less a question of a new proof for historical science than of a new crafting of the proof as time. "In Photography I can never deny that the thing has been there. There is a superimposition here: of reality and of the past" (76). And yet, "no writing can give me this certainty" (85), while slavery's fact is established in photography qua event, where "established" means certified by a referent the photograph restores to certain integrity. Barthes calls this certitude "the power of authentication," which "exceeds the power of representation" (89).

> How can we trust current events when everyone knows that these images, this so-called representation of reality, have been selected, modified, transformed, assembled into a montage over which we have no control—a trick, a fake. The historian could not possibly rely on documents of that kind,

as Marc Ferro writes. He then adds: "It would not even occur to anyone that the choice of these documents [the historian's writings], their assembly, the establishment of their arguments, are not equally a montage, a trick, a fake" (Ferro 1974, 319). Historical science tends to reject photographic or cinematic documentation precisely because of insufficient certainty, or from the insufficiency of procedures that would be needed to verify this ortho-graphism. History finds memory's written documentation more reliable, truer to the "historical process." Ferro argues against this apparent reliability, this historical truth's being greater, and instead defends a history that is analogically (not only literally) retro-visible.

Barthes might seem to be close to Ferro here. But he seems to distance himself in claiming that the photograph dismisses history, its methods, its requirements. This would mean a radicalizing of the idea of photographic certitude as undermining an entire cultural heritage, and that it would be a question of isolating it.

Following another thread, Pierre Nora foregrounds the historical operation conflict not only with the image as such but with all contemporary encoding and transmission systems: history's monopoly thus leads to the mass media, the displacement factor being the modern event, a new phenomenon born at the end of the nineteenth century along with the popular press and the Dreyfus Affair

> Which seized hold of the entire press, and gave it everything. . . . Press, radio, images are not merely means from which events are relatively separate, but the very condition for their existence. (Nora 1974, 288)

A certain type of event is possible only if certain types of media exist—a hypertrophied and monstrous event, first of all, for the historian:

> The event, in a traditional system, is the privilege of [the] function [of the historian]. The historian was the one who gave it its place and value, and nothing could penetrate history without its stamp. The event offers itself from the exterior, with all the weight of a given, before its elaboration, before the work of time. (emphasis added)

In the "traditional" system, the historian "produces"—in the juridical sense of the word—the event, but *après-coup*. An event's narrating acts on the event itself through a retroactivity that is not historical and that only produces the event in recounting it, making up the event only through this information capture [*saisie*], which means that this retroactivity always occurs after a certain delay, and that this literally delayed narrative's dispersion is a short-circuiting of history qua science as well as qua temporality:

> This event without a historian is constructed out of the affective participation of the masses, the sole and unique means they have of participating in public life.

Such an event would seem to be without (an) *us*, if in fact it is true that the event of an us would need to be an act acted out by the historian. That is to say, such an event would be an act without a for-us, since it would be the historian (as the writer, "doxicographer," or philosopher of history), in *retrospecting* and thus *retroacting* (an) "us," who truly (within *his* historical truth) constructs *the* us—in *retro-vising*[16] it, in deferred time, as after-effect.

This telescoping, the occlusion of an us and a for-us that we had known, is only possible because of the elimination of the deferral effect. Today, "the present" is lived through us "as if charged with the sense that it is already 'historical.'" It comes to us already "produced," fabricated, constructed, operated, or written—just as it is for Barthes, but with the element of the photograph's positivity, the that-was of the photo-graphed past appearing as already established. Consequently, because it is always already "historical," "the present in our times" is no longer actually historical: what has been occluded, telescoped, short-circuited is the work of time.

Such analogic and numeric meditations result in "an immense shift from the immediate to the historical," made possible initially by the speed of transmission:

> The moon shot was the very model of the modern event. It relied on *live* re-transmission by Telstar. . . . The essence of the modern event is to unfold on an immediately public stage, never to be without reporter-spectator or spectator-reporter, to be seen unfolding—and this "voyeurism" gives the news

> item both its specificity relative to history and its already-historical fragrance. (Nora 1974, 295)[17]

Because there is a conjugation between the news story's reality-effect and its real-time transmission as event, the story of the event, and that story's transmission, take place in one and the same instant, in one and the same temporal reality, as an omnipresent temporal object inaugurating an entirely other "work of time." A present-ing of such a past (which includes and chiefly consists of a past "just past," which is primary memory) through the agency of a reality-effect that produces the present in real time, live (i.e., "presented" by a "presenter"), thus also produces a certitude "that no writing could give me." "What uncertainty—what who? and what us?—could that also give me" if "the work of time" must also be the play of uncertainty of both sensibility and of differing?

The "traditional" system for identifying a historical event has been "the writing of history," a programmatic conditioning of time through memory's literary, différant identification, and the real, irreducible delayed-action effects by which "events" are, in part, captured by writing: in writing it is the rule—and the exceptions draw all of their exceptional nature from the rule—that an event precedes its input into a system, and that this input precedes its dissemination—its reception. This structure configures the present-ation of the past (i.e., of the present, of time)—and as the retroactivity of an originary default, of the "story"'s delay and the event's reception, in an event-time that can only be constructed, however, in this *après-coup*. The story's broadcast-time is always behind what is being related, what is being cited in being re-cited. The recitation, which (already) contains an initial delay, is necessarily a repetition; thus Paul Ricœur can say that "history is always re-recounted."[18] In the "traditional" system,

> the event was emitted, transmitted, received. The *story* that passed the event from a medium in which it was dead [*mort*] to a medium in which it was deadened [*amorti*]. (Nora 1974, 297; emphasis added)
>
> The event determined its broadcast area by its own content. Its sphere of influence was gradually defined by those who came into contact with it. . . . The intermediaries were then short-circuits, a telescoping took place, and in the incandescence of significations, one is blind. (300)[19]

Notably, the uniqueness of certain literary acts (contracts, declarations, etc.) results from the fact they manage to escape from the "event"'s non-coincident "input" and "reception" rule, even while their performativity remains part of their exceptional nature—and their exceptionality's authority depends on this—with regard to writing's rule, namely, transgression of factual non-coincidence, of story-as-event, and of the story's reception. An authenticated contract, for example, is just such a coinciding: the signature on the contract is at once fact and the fact's story; the signatories' presence is their receiving the signature's input at the moment the input occurs.

Like the photo camera, all analogic and numeric devices are based on a mechanics—or an electronics—of clocklike precision: a mechanical technicity of the *what*—that captures the event's image in flight and instantaneously solidifies it; the result is the unending production of temporal objects and the veritable conflagration of time, the quotidian being produced by the generalized performativity of quotidians of all sorts. Any event produced in this way is essentially affective: it tends always to be treated as a brief news item; the Troppman case is a good example, the press tending always to be sensationalist. The sensational "imprints" public memory, and this sensationalism, linked with the elimination of the delay that is the mark of all non-reflexive reflexivity, the *après-coup*. This all seems to occur as if a sense-memory were to appear that would conceal noetic inscriptions, efface them, even make them impossible.

What is disquieting here is that the period of cultural conflicts Nora and Minc promised us, presented on the ground of event-oriented affection (i.e., the passions), and with a passion that is only, strangely, that of space and time in their de-realization, is the passion of an us become global and that consists of conflicts that are no longer merely cultural.

Real Time and Politics

The political is marketed in and by "real time." The contemporary politician is increasingly a manager of opinion, less and less a politician. Public life, seen as the defining and implementing of political organizations' action programs, is a function of the real-time procedures, defined through polling strategies developed through marketing studies as instruments for "measuring public opinion," the goal of which is audience-control through quantified knowledge of current trends and, through direct,

"strategic" "no-delay" interventions, on their evolution. This real-time information system of data collection is also their disseminator, publicly announcing raw results, as percentages, and extrapolated results, in the form of the public reactions of their target audience: politicians themselves—and their "sound bites," actions, and gestures acknowledging clear reception of the raw results' "message." The result of all this is the end of strictly political programs coordinated with coherent and integrated choices made over the long term as functions of ideas and collective actions, which are replaced by objectives and strategies of communication. Memory's industrial synthesis "empties the parliaments" (Benjamin 1971, 107, n. 1): the principal preoccupation of politics is now the real-time audience, which has become the principle of all its activity. This puts democratic différance itself under threat since direct democracy no longer exists: now it is either indirect or a monstrous caricature. The fact that all political organizations now use polls to measure popular opinion, undermining popularly initiated referenda, negating the representative nature of governing assemblies, and encouraging absenteeism among representatives to consider the effects of this reality and of media presence, gives rise either to excessive use of the media's immediacy effects or, given the political task at hand, an inability to think through these strategies, thereby to redouble them.

Just such a task is the focus of Paul Virilio's thought, in the form of a geopolitical and technological question of transmission and thus of time: space is critical when depth of *field* replaces depth of *time*. Time apprehended through speed is the techno-logical crisis of space. Ever since his *Vitesse et politique* (*Speed and Politics*), Virilio has investigated spatiotemporality in its most general sense as it configures the global technological machine significantly governed by polemical imperatives:

> At the crucial moment in the Cuban missile crisis . . . the delay in any declaration of war was still fifteen minutes for the two superpowers. The installation of Russian missiles on Castro's island risked lowering this delay to thirty seconds for the Americans, which was unacceptable. . . .
>
> Ten years later, in 1972, while the normal alert delay is no more than a few minutes (ten for ballistic missiles, only two for satellite-based arms), Nixon and Brezhnev signed an initial strategic arms limitation agreement in Moscow. In fact, this agreement aimed less at the numerical limitation of arms, as the adversaries/partners pretended, than at the preservation of a genuinely "human" political power, since the constant increase in rapidity risks one day

> or another bringing the warning of nuclear war down to less than the fateful minute, this time abolishing all power of reflection and decision for the chief of state in favor of pure and simple automation of defense systems. . . . The war machine suddenly becomes, thanks to the reflexive action of the strategic computer, the actual decision-maker for war. (Virilio 1977, 136)

Virilio's *L'espace critique* (*The Lost Dimension*) extends this analysis into what could be called the electronic calendrical system, whose source is to be found in this "chronological and pendulous kind of war that regenerates the old geographical war between populations" as a general system of time in which the cosmic conditions (the programmings) of temporality are suspended: a *false day*:

> Since one no longer just opens the shutters but [turns on] the television as well, the day is modified: to the astronomical, solar day; to the failing day in candlelight; to electric light; to all this is now added an electronic false day whose measure is uniquely that of the "communication" of information with no connection to real time. Succeeding past chronological and historical times is an instantaneously rendered time. On the terminal's screen, duration becomes inscription's "writing surface," literally or rather cinematically: *time produces surface*. (Virilio 1984, 15)

Real time is a derealization of time, as if time were really real only in remaining unreal, chronically diachronic, asynchronized, late for itself.

Time's derealization qua *real time* is delocalization.[20] The onset of a crisis of space by a time that affects all architecture and archi-tectonics, *tectonics* in general being then being constructed on a technological archi-texture erasing the difference between nearby and far away. We have seen how this "archi-texture" does not occur as architectonic, having always already constructed it. The electronic techno-logical, properly speaking, would however be a derealization in which "arrival supplants departure: everything "arrives"—"happens"—without needing to depart," spatiotemporality as such finding itself suspended. Here, what really happens, that is, without delay, as if the already of already-there had been erased: if it is already the case that the things happening to us without our having to pass out of them do so within the letter's structure, they will only have happened to us through a delay, and in a sense because they are already past, have already happened. But on the contrary, real-time electronic transmission occurs within a confusion in which what happens and the happening itself are destroyed in their coincidence, which is also

a suspension of programs of sensible intuition. This is the paradox of transparency articulated on the principle of "depth of time," effacing the "politicity" of the polis and the urbanity of urban space.[21]

Once again, the question is one of sensibility, of finite intuition in which only a retentional finitude can provide techno-logical synthesis and the becoming-industrial of retentional synthesis. When Virilio says that "advanced technologies have converged to fashion a synthetic space-time," he does not mean it the sense in which, for Kant, finite intuition synthesizes the sensible. Here, rather, synthetic opposes real in the sense that a synthetic stone is false and valueless, non-real, that which leads in world such as ours to a sense of the real that is reduced "like a *peau de chagrin*."[22] Thought in this way, the real becomes the possible, not the other way round—and as we shall see, this issue is at the heart of the biological synthesis.

If we can establish that technology is originarily synthesis, is in fact originary synthesis as the prosthetic condition of the who and the default of origin, the other will then become less mysterious, if not less foreign and disturbing.

In "real time" retroactivity becomes a generalized performative in which speaking, showing, selecting is a question of doing, and in which by the same token structure, endurance, and the work of the *après-coup* are specifically occluded to the extent that there is a new examination of both the temporal ("what happens" to everyone simultaneously) and spatial (delocalized mediatic space) contexts. What, then, would be the experience of possible repetition within this context? Could "real time," tending toward reduction as floods of information perpetually erasing themselves, along with all possibility of rereading, in a repetition eliminating repetition, drain away all productive repetition of difference in order to exist exclusively on the terrain of "bad repetition?"[23]

Numeric performativity is also constructed, through the coincidence and conjugation described previously as analogic media functioning. A computer keyboard is a data-upload terminal in which a datum's input virtually coincides with its processing since the machine operates in real time, in what I have called "interactivity." Take, for example, use of the credit card: an operation in which withdrawal of money (as event authorized with a code number) is automatically recorded and sent instantaneously to the client's account. When this operation is applied to the military's system of nuclear weaponry, it becomes radar qua input data,

launch coordinates for a nuclear missile qua output data; informatic surveillance of "enemy territory" forms a parallel instantaneous network, the combination clearly indicating that the system's reactive speed excludes, a priori, all human decision-making. And this no longer applies merely to the transmission and input achieved "in light-time": data processing occurs as a real-time calculation.[24] This is the essence of the numeric relative to the analogic—but the analogic has now been integrated into the numeric, which affects all decisions, and, most important, all collective decision-making. Thus no political decision can (should) ignore the fact that it is only able to exploit these numeric effects. Therefore, the task is to concede, even to affirm, that anticipation can no longer be computed in a pure calculation done outside of all calculation—the task is to produce analogico-numeric différance by redoubling the technological suspension of literal différance, which is all the more delicate in that retentional finitude's current synthesis is militaro-industrial: the reality of today's passive synthesis is militaro-industrial activity infusing the technological tendency—while political art is that of war for the purpose of peace.

Supports, Duplications, Processing, Archiving

The German industrial group BASF marketed the first magnetic recording device in 1934. This innovation's importance was immense: from its inception, it enabled the preservation—and new possibilities for the manipulation—of a flood of live data that had hitherto been lost with their network diffusion; amassing of analogic archives became conceivable. Electromagnetic technology made numeric information-processing devices possible; the core of any computer is its central memory, consisting of 0's and 1's as two magnetic states stabilized by an electric current. Entering and erasing on an electromagnetic support enabled, as calculation, information-processing at a speed very near that of light; such technology is the basis of the massive memory required for peripheral data-processing.

Options for mixing and montage through magnetic recording thus brought about a new generation of analogic technologies. Videography and its offspring, including second- and third-generation numeric devices and wireless technology, are the return of television and "live" broadcast technology to recording and to deferred time.

Today the great majority of these processing operations, often distinct from data-entry and reception operations, use electromagnetic technology. These instruments, truly and fully realizing writing's function by supplementing simple recording operations, are also necessarily duplication devices, what is already the literal writing "apparatus"—the writer as reflected in writing (that is, in being copied and cited precisely). The writing of memory is always implementation of a montage of "cut" and "paste," basic concepts for text processing.

As use of these reproduction devices (first tape recorders, tape decks, video recorders, then laptops, cell phones, MP3 players, I-Pod's, the I-Phone, etc.) spreads, all of these reproducible magnetic devices invade shop windows. These media, to which must also be added others produced even through photonic technologies (compact discs, etc.),[25] which thus become multimedia and are now to be found in libraries as new technologies alongside the phonographic and photographic and, to a lesser degree, film.[26]

Messages' processing and diffusion mobility, but also their mass duplicatability, thus attains the true physical limit—absolute speed. The history of memorization techniques shows that they are developed in order to augment message components' combinative mobility, their mobility across various media, the mobility of media themselves, and finally their reproducibility: circulation and duplication of memory messages continuously accelerate and intensify with time. But between Lascaux and the *Petit Journal*, a reversal has taken place: Lascaux's Chamber of the Bulls is memory's im-mobilizing in the crypt of "prehistoric mysteries." With temple stones, and initially with tombs, if the place of inscription remains immobile, it has nonetheless been built: the support—the medium—is already the product of displacement. But the message's receiver must go to the message. In a mobile support, from the engraved tablet to papyrus, to parchment, and finally to paper, the message's trajectory is inverted: the memory message can be "sent" from its transmitter to its receiver. But only with networks does this first inversion reach its limit: creation of Louis XI's postal service was a memory moment as essential as the widespread concurrent appearance of printing shops. Yet clearly even the "iterate" postal network is not a true limit, since a delay between sending and receipt of a message is inherent in it: in 1756 France, it took fifteen days for news leaving Paris by mail coach to reach Marseille. The true limit is

only attained when information, circulating without delay, merges with "apparently instantaneous" time.

Memory has become the primary economic engine for current archival media, whose preservation and organization are enormous business risks: memory archives, very promising areas of investment, must be profitable. The more media are industrialized, the more they produce, and the greater the expansion of funding dedicated to their preservation. Since memory is constituted only in its memory lapses, it must erase information not only through economic reality but in order to be able to remember—even if delegation of "reading" to machines working at the speed of light allows for the sheer mass of memorizable material to be significantly increased. Too much memory would be equivalent to a memory hole. Then the question remains of who regulates selection: if it is true that the criterion of elimination has a tendency to become the preserved database's strictly commercial profitability, is it conceivable that "new archives" might be exclusively subject to profitability? Could the future—memory to come—be seen purely as the result of its depreciation? At issue is the knowledge on which memory's "profitability" rests, for the community as a whole and long-term—"as a whole" and "long-term" being only minimally compatible with the law of rapid depreciation dominating an economy hegemonically regulated by permanent innovation, speed, and investment mobility. But the real challenge is to know if such a "profitability" can be calculated. In truth, this is not so much a question as a differend: what memory tends to preserve is the future as incalculable, as the opening up of an improbable: time qua undetermined as game of chance. To calculate the preservation of the already-there's profitability, to rationalize retentional finitude, would be to "determine the undetermined."

Knowledge stored in telematic data banks is now disseminated through compact optical media. The main advantage of numericization, other than the ability to store enormous quantities of data (as well as ancillary images and sounds) on the same platform, is the possibility of "reading" at the speed of light: this is one of the most immediate benefits of operational knowledge's delegation to cybernetic machines. The technological evolution of memory industries—memory capacity doubles every eighteen months—means we can imagine a future in which all forms of inscription—written, televisual, or radiophonic—will be accessible under such conditions and in full quasi-integration.[27] An industrial fabrication of time in which all current politics and all public life take place on a

mediatic ground co-producing them and to that extent anticipating them would then be the integration of the public past, events having reached the status of event-ness—of the already-there—in the course of becoming available to all reader/recipients, achieving an entirely new mobility.

One is tempted to suggest that under these conditions, the issue of memory's profitability solves itself: this would largely be self-delusion, however, forgetting that the law of retentional finitude is that a memory in plain text remains one way or another inconceivable: memorization *is* forgetting.[28] Only God doesn't forget. But he has nothing to memorize: he is unaware of the default.

Decommunitization

Though Plato *repeats* it endlessly to us, we are inclined to forget that orthographic writing is already a technique of memory. This is in effect Epimetheus's distraction. "We," the Occidentals and the occidentalized, have made this technics our second nature, while at the same time also tending to see technology only where we see visible, material devices, dominated as we are by a narrowly forgetful understanding of what technology in general actually is.

We have seen here that the characteristics of literal synthesis are very different from analogic and numeric technologies regarding the fabrication of events. And this is not all: contrary to the new syntheses, technology assumes that the receiver of this kind of (literal) message can read and write. The literal reader is him- or herself an apparatus—is "apparatused": reaching from the self to the contents of a literal recording is conditioned on having spent many years instrumentalizing, automating, mechanizing memory's operation, having been by oneself and for oneself transformed into a reading instrument. This is also a technique of the body—of Broca's Area in the cerebral cortex and other regions of the brain, particularly those controlling vision and the hand. With analogic and numeric technologies, encoding and decoding operations are delegated in(to) machines: the instrumentality of the who, or at least one part of it, passes into the what. The video recorder "reads" the videotape, the computer the diskette, the hard drive, the web. It is not a matter of an instrumentation subjected to memory but of displacement of an initial instrumentation—of its finitude and its originary fallibility, a fallibility that is transformed, passively synthesizing différent-ly: while in literal technology the message

sender is also the message encoder, and the receiver its decoder, in analogic and numeric technologies sender and receiver are not coincident with encoder and decoder.

This is not without consequences for the reading, and also for the writing, of analogico-numeric memory. When collective memory becomes analogic or numeric, the relationships between messages, senders, and receivers is appreciably changed. At first, the receiver can be exempted from any specific formulation of these memory syntheses (from what in the century of generalized literacy was called a Bildung), an inversion of what characterizes institutions of orientation within the historico-literal already-there of administrations, courts, libraries, and so on, for which true access requires association with a scholarly institution.

Operations of "recording" (input, encodage) and "reading" (reception, decoding) are integrated into early analogic devices such as the first Edison phonograph. With the advent of networks of input and reception devices, these operations tend to be separated. These two poles are the extremities of a network: at one pole, industrial manufacturers, at the other, consumers. If the current continuous flood of information develops into a true memory consumerism, it would tend as much toward the delegation to machines of "expertise" and "writing skills," as the technical tendency's full fruition and toward the becoming-merchandise of memory. Such development would be impossible without such delegation. And because investment in development of new machines requires a market, the inverse would not be possible either. Since consumer access to a network is only through an intermediary output device, reading analogic and numeric memory traces requires that the receiver have an appropriate device. When it was merely a matter of written marks, the "reading device" was the receiver him- or herself: the reader, once literate, interiorized techniques of decoding, and at the same time of encoding, in the form of a competency acquired in school, of a knowledge in the literal sense: in literal synthesis, to know how to read is also to know how to write, and this is the equivalence implied by the instrumental characteristics of this synthesis. With technologies of light-time, "competency" has become buying power, no longer political (which is always orthographic knowledge) but economic. The minimal reciprocity that connected the reader of a text with its author, namely, that they share a techno-logic competency (that of literal/literate technology), is severed. In this sense, analogic

and numeric technologies suspend the participative aesthetic of ethnic communitarian forms and enter a process of decommunitization.

Communitization is essential to knowledge when as the rational it is knowledge of ideal objects, which means first of all geometric knowledge: the passage from land surveying to geometry is possible only through production of irreducible idealities to the experiencing of them, as "detachable," decontextualizable, and communicable beyond any here-and-now of any geometry: science is developed in time, beyond its present, cumulatively, and it is historical in the sense that it can be reactivated: a geometry for today would not know how to produce a new geometry that did not proceed from the totality of the ancient ones, from its origins to the present moment—without "reactivating," in other words, the originary institutions that are the very movement of geometric idealization. Any assembling of geometric knowledge thus must be able to work between and among geometries across space and time without their being present to one another: ideal knowledge is impersonal, detached from the knower; this is why it can and must be written. In order for there to be apo-dicticity, a re-presenting of preceding geometricians' thought must be manifested constantly for any geometrician, with no loss of the substance of this anterior thought—only possible thanks to techniques of orthographic writing. (It could be demonstrated that this is true for any knowledge based on an "idea"). Writing is not here simply a means of transmission of geometric knowledge that would be indispensable to its constitution; more profoundly, it is the very possibility of understanding, that is, of receiving a geometric message: obviously, someone who cannot read nor write could not understand a geometric message since all of the message's terms require any receiver to have access to its exact codes [*de leur lettre*]: such a message can only be *written*, can only *be* written, even when presented orally; a receiver can only be one to the extent that memory is subjugated to and trained by reading insofar as it is also writing—insofar as one is in possession of at least elementary technological knowledge, insofar as one is, a priori (that is, in the paradoxical a-priority of *a-posteriority*, in an accidental, technological a priori or aprioric accidentality), in a position or pre-dis-position to know: the *stoikhēia* of enunciation.

Reactivation, the condition for science's enrichment, depends on a reading of the geometric already-there that Husserl calls the "active." This kind of reading activity gives rise to the writing of a new geometric

enunciation and geometry's advancement toward its becoming-ideal. Yet for us that would mean that all true reading competency would require writing competency, even when reading is not a simple equivalent to decoding. To "understand" a text, to explore the foreignness, the strangeness Maurice Blanchot explores is always to be capable of writing what one has read, and never to finish writing it; that is, in order to be read, the text must be as interminable as the future is improbable (because undetermined). This textual *what* is not a simple, ready-to-hand being thinkable within categories of reality.[29] But we can also see here how the positive nature of literal instrumentality inclines the *who* toward this singularity of its *what*.

All literature teachers know that initially, reading is phantasmatic, a default of reading; only through the challenge of writing (about) what one has read can one know what has been read. Just as a thinker can never know completely what he or she thinks without passing through others' thoughts—as Wittgenstein learned in analyzing the philosophico-grammatical privileging of the *I*—, a reader must be written and must be able to reread as if one were an other in order to know *in fact* what one has read. Since ancient times, schools have studied, compared, cited, and copied the works of "the masters"; students write "explications" of texts, dissertations, summaries, and so on, whether it is called rhetoric, teaching dead languages, or French class. As such, it is a knowledge achieved through orthography.

On the contrary, writing is nothing other than this reading—above all it is reading, so that Calvino, celebrating the literary machine and projecting his future onto the cybernetic horizon, could write that "the process of literary composition having been dismantled and reassembled, literature's decisive moment will become reading" (Calvino 1987 [1980]).

Cézanne suggests that we read nature such that we see only what we are capable of showing. His visions of Saint-Victoire are only "true" when he can paint them; the mountain's reality is this possibility:

> Let us read nature; let us realize our sensations in a simultaneous personal and traditional aesthetic. The strongest of us will be the one who sees deepest and realizes most clearly, like the great Venetians.
>
> To paint nature is not to copy objects, it is to realize its sensations.
>
> . . . To read nature is to see beneath the veil of interpretation through patches of color displayed according to a law of harmony. These great hues

> are thus analyzed through their modulations. To paint is to register colored sensations.
>
> . . . Everything is summarized in this: to have sensations and to read Nature. (Cézanne 2001 (1986(, 38; trans. slightly modified)

To see clearly is not only to have sensations; that would be merely the phantasm of sight. Clear seeing reifies these sensations: it shows them forth as an interpretation in recording them. To have sensations; that is, to give them—to give them to sight, to show them.

To truly read is to write, or to read out of the ability to write; to truly read is to show, or to see out of a demonstr-ability.

Such a knowledge of knowledge is preserved by a "participative aesthetic." "Decommunitization" occludes it. And yet if one studies the heritage of the literary works of scholarly training by dismantling it, if one learns to write by reading what has been written, if one learns to read by writing about what one has read, then one will produce true images and sounds beyond those texts: the true reading instruments of analogic recording are those by which one learns to see by showing, while showing: it is when one image is added to another, as sentences are cited through their rearranging, their disassembling, that one sees something of this image, and never the same thing twice, since what the image shows is a sequence, a passage that it opens between those preceding it and those following.

To read—to see, to understand—, is to interpret one's time. To write. There is no reading that is not technological. Time is ex-static; the *who* is temporal since it is outside itself, already-there in its *what*; the *who* is no more than its past, a past not preserved in the *who*'s memory but in the *what*, which means that its past is not its own, since it remains to come. This remainder is "transmitted" to the *who* according to "objective," techno-logical conditions through which it is recorded, on materials or supports that open onto its indeterminacy and which it passes by and survives. "What is it to read?" thus means: "What is time?" which in turn means: "What does technology promise us?"

Technology promises us a struggle among many developmental "models" containing contradictory possibilities for memory's organization. In other words, the question of memory, which we only discover in its urgency as the question of technics, is tomorrow's political question.

Information and Knowledge

Archival "profitability" is not calculable, because archives have sealed within them the already-there in the sense that undeterminedness is the already there as what remains to come qua once-again. Knowledge is not information because all knowledge is first and foremost knowledge of knowledge's improbability and the who's undeterminedness, as improbability and undeterminedness that must be inscribed, différance that must be fabricated.

What Husserl calls reactivation is a reactivation of Kant's rational knowledge, which he opposes to "historic" knowledge. As the only possible knowledge, rational knowledge is not simply received,

> as for one who has learned a specific philosophical system, [Christian] Wolff's for example, has all its principles in mind, all its definitions and demonstrations as well as the divisions of the entire doctrine, could somehow count all its elements on his fingers, all that would still only be a *historic* knowledge of Wolff's philosophy; one would only know and judge from what had been given. . . . Though it is formed through a strange reason, imitative power is not the power of invention; that is, knowledge was not produced *from* reason, and although it is doubtlessly objectively a rational knowledge, it is nonetheless subjectively only a historic knowledge. (Kant 1944 [1781], 560)

That any reading is intended for writing means as well that, as true knowledge, rational understanding must be remade by one who understands. But this (re)constitution of knowledge is possible only because there is originary knowledge, "mathematical" in the ancient sense, in which

> the mathematical is that fundamental position toward things, in which our grasp proposes things to us which seem to be like what they have already given us, and must be it. Mathematics is thus the fundamental presupposition of the knowledge of things. (Heidegger 1967 [1962], 87)

A knowledge must be recognized as originarily there, already there, in order for its transmission to be possible, which in turn signifies an essential intransmissibility of all knowledges, that it is not enough to receive.

When transcendental analytic becomes existential analytic, all knowledges are occurrences of knowledge of the end, of death, as "isolation."

When the existential analytic molts into grammatological deconstruction, it means that geometric knowledge is knowledge of death as

knowledge's mortification through writing. The intransmissibility of originary knowledge is knowledge of an originary default's being inscribed above and beyond all presence,[30] as retentional finitude, as différance of the trace, paradoxical transmission, aporetically programmatic improbability: knowledge *is* technics.

This "mathematical" knowledge will never be understanding, and this is why transcendental imagination has primacy over reason. Knowledge from which all knowledge can be known is improbable: this would be knowledge of being-for-the-end that cannot be knowledge, since if mortality is the "essence" of "knowing," its death, that toward which it is, that which it anticipates, is properly speaking what will never happen, never arrive. Nothing can be known of death, and nothing can be known starting from the horizon of mortality and from this impossibility of knowing. Knowledge of death, as elementary, is intransmissible as such. Thus in the *Meno*, Socrates is forced to conclude that virtue also cannot be taught. But what that means for us is that the supplementarity of originary knowledge, knowledge of the default of origin—being nothing but the occurrences of supplementary knowledges emanating from it as facticity, dissimulating it, occluding it, completing it only as the non-completion of the end—is elementary. Its elementary nature is the pro-grammaticality, pro-grammability, pre-inscribability of the *already* in the already-there of the world for that which comes into the world, which is the accumulation of past retentional finitude's traces. Elementary knowledge, improbable, unprogrammable, can only be known programmatically, and the anticipation within the improbable (which is always knowledge of death) is immediately also a calculability and programmability completed only in its being incomplete. This is why, symmetrically, the truth of intransmissible knowledge is the transmissibility of knowledges in which, in effect, knowledge manifests itself in being occluded. Knowledge that is in fact intransmissible is always already the effective transmission of knowledge, as the durability of knowledge's improbability within the indubitability of evidence, marks, testimonies, accumulations, and recordings of knowledges qua traces (already-there) of knowledge: as its past, that is, its passability, its essentially accidental finitude.

Transmissibility is an essential attribute of knowledge, even if it results from a radical intransmissibility: no knowledge is incommunicable, knowledge only exists in its transmissibility, even if and because there is a knowledge of the incommunicable (which is only testable without

the likelihood of being transmitted, only in différance, that is, also in changing and becoming), an incommunicable that is time. The fact that transmissibility is also a simultaneously essential and accidental attribute of knowledge means that knowledge's transmissibility is knowledge itself qua transmission of the experience of the intransmissability of what always already withdraws, makes mistakes, and opens the *who* to its indeterminacy-to-come.

Thus knowledge is the mutability of knowledges. Mutability is another name for knowledge's essential accidentality: there is no immutable knowledge, and universal knowledge as totalized, ideal, rational knowledge is irreducibly open: the transmission of knowledges is their transformation, across which ranges the persistence of intransmissible knowledge, tested by a reality that appropriates it even while instrumentalizing it as well as the conditions for its elaboration and production. Knowledge's contents are constructed by their reproducibility, and knowledge's reproducibility is its producibility.

As an expression, real time is always a matter of transmission. If knowledge's transmission is always already its production, any modification of the conditions of their transmission is also modification of the conditions of their production: the industrial syntheses of retentional finitude is a system of the production-transmission of knowledge in real time that is substituted for the transmission of knowledge operating in deferred time. Knowledge's transmission is always already occlusion of knowledge. But this occlusion is also the work of knowledge qua différance, the experience of occluded knowledge.[31] Would the occlusion of real time then keep in reserve a work of knowledge that would still be open to the indeterminacy of knowing?

Archival profitability is also that of knowledge archived and "informaticized" through the same submission to a certain concept of value. To be more quickly informed, and more fully than anyone else: this is information's impetus, which determines its value and justifies its commercial exploitation. Speed is salient only if everyone does not profit equally from it. Speed creates a difference in providing an advance, an informational advance. In market transactions, this advance means financial benefit—power. Though it is a more or less ephemeral trace, information's value, as primarily determined by time, is radically differentiated from knowledge and works: it would be absurd to say that the Pythagorean theorem, a Platonic dialogue, a Newtonian theory, a poem by Goethe, or a novel

by Flaubert loses or gains value over time. Works do not allow for saving time: they give—they are—time.

Information can be processed and produced in proximity to absolute time. This processing does nothing but produce new information and augment the amount of available information, which is in turn processed, and so on. Given the speed of this calculation on the scale of our thought process, of our apperception capacity, information proliferates infinitely and is finally unprocessible for "us": we are too slow, can no longer be its receivers; we are no longer at the level of the processing problems spanning all the information that must then be processed without "us," and the implementation of automatic processing programs for buying and selling on the market, for example, is inevitable.

The determination of information's value through what is known as "information theory" enables this calculation and therefore this (market) commerce. If the informational value of a sign is defined as "improbability," it becomes essentially provisional and thus must in principle be saturable: the sign's a posteriori informativity is an exhaustion of its improbability, the consummation of the informative "event"'s event-ful nature. Information is not, in principle, repeatable: its repetition is an exhaustion of its value, as opposed to knowledge which, in principle, must be repeated and can never be exhausted through repetition—but is, rather, differenced through it. In the case of knowledge, repetition is différant and interminably calls for its repetition; in the case of information, repetition is indifférant: repetition exhausts information's difference.

Knowledge is not outside of time; it is neither eternity nor immortality, since the work is the test of the undetermined, the open, time. Knowledge's time is deferred time; information, in its indifference and as a function of "real time," thus could not account for knowledge. Thought is only the thought of its past, and the conditions of access to such a past are determined by its form. Info-performative structure *tends* to eliminate this past (of) thought in its association with real time, as it saturates it with information, suppressing the default, the error, that which is the worst default, the worst error—the suppression of *epimētheia*, of knowledge.

And yet, as traces, information appears once-again as différance.

Speed, Urgency, Risk

Today, conditions of anticipation have radically altered. The new syntheses have been overdetermined by the economic imperative of profitability, and speed taken to its limit is the essence of a system whose principal effect could be characterized as a generalized state of urgency. Within the modality of calculation and the program, industrial anticipation seems to need to erase all experience of the unhoped-for—all hope; [to initiate a] "time of distress."

The non-calculable, in its very essence, is unhoped-for. This is not merely a question of the in-calculable in the sense explored by Dominique Janicaud (1994 (1985(), Jean Ladrière (1977), and Patrick Lagadec (1990 (1988(). There is a paradox in the speed of calculation that is the incalculable as risk, as accident. But there is also another incalculable that is a form, not of a faulty anticipation—a lack of foresight—but rather the very time in which risk is also chance. It is this risk that industrial urgency tends to eliminate in engendering only partially incalculable, trivially catastrophic risks that haunt today's public opinion.

Urgency is a certain temporal mode of being. Urgency occurs when the immediate future is violently introduced into the present as the undetermined but immanent possibility of an accidental, unforeseen event. It can result in speaking or acting without reflection. Contemporary technics, characterized as a system for producing and managing speed, and dominated by analogic and numeric technologies controlling this management, gives shape to a generalized temporality so as to control real time. This is a calculated time that is concealed from itself, the result in the nuclear age being the possible decision to launch a missile as coming, theoretically, from a computer more quickly than from "us" in the form of the head of state, who would be too slow, and is thus obsolete in this respect. A similar principle applies to information about current event, which are therefore "made" by the press. Aiming at the realization of real time, this system, all the more vulnerable in its integration, is susceptible to very serious invasions and leads in the end to paradoxical inversions. Urgency, which is no more than what Bertrand Gille calls permanently radicalized innovation, a latent dynamic factor, also produces increased vulnerability, more or less contained but always capable of surging forth in explosive form.

Paradoxical inversions are ameliorated by the event's confusion, its entry as data and its broadcast/reception, along with its concealment of the delay that is always time compromised by reflection: democracy is lived "in real time," though a certain deferred time of "différance" is essential to it; the outcome is a state of mediatic urgency, of which terrorism is one of the clearest manifestations: since it is often the result of what the surfaces of mediatic inscription have not selected in the course of ordinary eventization, terrorism radically exploits the logic of the sensational, and only functions because the live mediatic feed is the media's functionality. More darkly and gravely, the political spectacle, which allows the mediatic management of objectives to remain short term, chiefly as the management of opinion, takes the place of political ideas, and is incapable of resolving the long-term issues that feed that very terrorism.

Technological development qua "permanent innovation" is itself a paralyzing factor for decision-makers/investors. The constant evolution of technological possibilities, the incalculability of their future effects, whose accumulation gives rise to a complexity in which there is no time for a real analysis that could account for the interdependence of the global, completely universal technical system's elements, leads to a development operating according to criteria of opportunities for the best possibilities of immediate gain. From this point of view, industry pursues its own development randomly—with a blindness that can prove very effective in producing maximal development since it is always basically a matter of the development *of speed*.

In all of this, where there is calculation, it often takes the form of a gamble seemingly carelessly at play with the incalculable. Thus, an unforeseeable racing of the machine becomes insistently more imminent and more likely. Dominique Janicaud sees this paradox as pervading the entire contemporary technoscientific system:

> Previous catastrophes and potential risks confront rationality with the effects of its own power: it learns that it is easier to create them than to control them completely. . . . Once such thresholds are crossed, danger is everywhere: in the real risks of combustion, loss of control of forces held in reserve, but—more subtly—in the paralysis or constriction of thought. The compass' needle panics at the approach to the pole: similarly, thought . . . can be tempted to renounce all unity, coherence, responsibility: to yield to the formidable pressure of the incalculable. (Janicaud 1994 (1985(, 50-52)

Here, calculation qua risk-reduction is also, and nearly fatally, the creation of a risk of a different kind, another incalculable.

The condition of urgency is also what one daily newspaper, on the weekend before the second round of the 1988 presidential elections in France, called "the permanent grand gesture,"[32] as if the state of emergency had become the law—a "law" whose usual role is to contain urgency.

Urgency, as the paradox of speed, is a *double bind*:

—to perpetually go faster in order to reduce risks

—through this acceleration, to displace risks by taking them to their limits

It is no longer the pressure of "minor" risks that must be managed. These are "major" risks, though less numerous—in fact more and more continuous, commonplace, ordinary, and radical. This is also a paradox of techno-logic's auto-mobility, of mobility's autonomy, of accident and the breakdown of essence. As high-priority instruments, laws of exception exist to control, through speed, the urgency created through the law itself—and this law *is* speed. It is necessary to go faster than the "authorized" or "legal" speed if accidental effects are to be resisted. But are those effects not essential to the law? An accident between an ambulance and a police car both breaking the speed limit going to the scene of an accident would be an example of an ordinary situation creating the structural tendency toward acceleration. The same structure exists in the market effects of telecommunications, just as in the anticipation of access to memory in general—and it is a question here, regarding speed and in the most general way, of profit, of gain qua gain-ing or saving time; of an advance against the future, where a structural technological advance puts technics into crisis, into a permanent state of urgency.

This is clearly a question of the autonomization of *tekhnē* and its automobility, of which the law could only be an accident qua breakdown (qua default) of essence, of being, of time—of an*other* time. The gaining or saving of time places time in default. However, we know that there has always already been "autonomization" of the techno-logic automaton; therefore, it is not a question of an autonomization relative to a golden age of the mastery of a technics "closer" to human beings, but rather of a becoming-hegemonic of developmental economic imperatives in accord with a particular interpretation of time qua value. Today, something quite new operates under the name of modernization, which has

become development's permanent dynamism: not merely a stage to be gone through in order to discover peace on the other side, but a state of total, incessant mobility that must be endured. If there is a staging to be recognized there, a leap to take, a threshold to cross, an age to abandon, an other to conquer, as well as the necessity of a risk, then modernization can only be reduced to an adaptation to new conditions of production. And this is an entirely different risk: a "much more considerable change" than the one we can read about in Herodotus.

On the networks, information circulates at the speed of light across network interfaces, processing systems also working at light-time, and this data-processing is anticipation: under these conditions, the usual receiver of information, the thinking *who*, seems to be dismissed, since it cannot think fast enough and must automate the process of anticipation. In order to do that, it employs the cybernetic tool called "real time."

Credit cards clearly demonstrate the final state of informatic real time: the operation of time-saving immediately transformed into financial gain. The entire system of monetary and parity exchange on a global scale bends to this logic: real time is a new condition within this form of speculation. Today, new syntheses order the *global economy*, subject to variations "to the nanosecond" within the exchange system. What economists call "self-fulfilling prophesies" remain incomprehensible if one does not take into account the immediate global transmission of information, a "chrono-logic" that is also an economic techno-logic. A contextual homogenization of the very fact of the suspension of cosmic and ethnic programs brings about a decontextualization making self-fulfilling prophesies possible.

The paradox of archiving (qua filing), anticipation of what must be retained through "selecting," is a paradox of risk: in which it can never known if it will be necessary to retain something, since the receiver of such a retention is the *who* as undetermined.

The risks created by this paradox of speed doubtless come from this same reserve, but stealthily: it is in order not to incur the risk of the undetermined—the risk, that is to say the default of origin—that calculation and speed create many risks. A particular understanding of risk is currently dominant, tending in its very essence to occlude the other—the understood, who is the other as other.

> As Gerald C. Meyers, former president of American Motors, notes, even thinking about the very possibility of failure is foreign to the manager's classic culture. . . . Think success, plan for success, allow no negative thinking, associate with positive people, emphasize accomplishment, and cast off losers. Citing the example of Harold Geneen, the legendary boss of ITT, Myers writes, "Once you have set a business objective, you must achieve it. Those who do not do so . . . are not simply poor managers; they are not managers at all." (Lagadec 1990 (1988(, 4)

This is a case of *epimētheia*'s denial, because money, as the *stoikhēion* of "development," is already a modality of the relationship with risk—that is, to what happens, what arrives—which is time. Jean-François Lyotard observes:

> If one wants to control a process, the best way of doing so is to subordinate the present to what is (still) called the "future" since in these conditions the "future" will be completely predetermined and the present itself will cease opening onto an uncertain and contingent "afterwards". . . .
>
> Someone (X) gives someone (Y) an object *a* at time *t*. This gift has as its condition that Y will give X an object *b* at time *t'*. . . . The first phase of the exchange takes place if and only if the second is perfectly guaranteed, to the point that it can be considered that it has already happened.
>
> . . . According to this way of treating time, suc-cess depends on the informational pro-cess, which consists in making sure that, at time *t'*, nothing can happen other than the occurrence programmed at time *t*.
>
> As for the time-gap between *t* and *t'* . . . , the more the temporal gap increases, the more the chance increases of something unexpected happening—the greater the risk. The growth of risk can itself be calculated in terms of probability and in turn translated into monetary terms. Money here appears as what it really is: time stocked in view of forestalling what comes about. . . . What is important for capital is not the time already invested in goods and services, but the time still stored in stocks of "free" or "fresh" money, given that this represents the only time which can be used with a view to organizing the future and neutralizing the event. (Lyotard 1991 (1988(, 66)

To question the time of thought, thought as time, requires on the contrary that "something happen whose cause is unknown." Thought understood in this sense gives rise to différance, or to Gilles Deleuze's nomadization (Deleuze 1994 (1968(). It is a thought that is also a certain understanding of writing. For Lyotard, this thought, *as* writing, must not allow itself to be subordinated to what he calls "telegraphy," but rather resist it. But this

is itself a differend: writing is always already telegraphy. It cannot simply oppose the process that it itself immediately signifies: it is essentially duplicity—duplicity in différance. The time of thought cannot be opposed to techno-logic or even to techno-scientific time: it is in fact their highest modality. Tele-graphy is impossible to resist in the name of the other measure of time—thought: in no case is it a matter of withdrawing into a sphere in which the "other time" would still be possible. One is not possible without the other. Différance does not exist without the technologics of differentiation. Writing, as a storing and counting technique, has always developed these two effects simultaneously, has always acknowledged real time even while opening the rupture [*déhiscence*] of différance. Technics does not in itself only occlude the *Eigentlichkeit*; it also frees it, as its condition or "site," place, *Ort*.

If our world can give no answer to the question *this who?* within *this what*, entropy seems unavoidable as the world waits for catastrophic white noise coming to parasitize the system through its own vulnerability—but then anticipation could no longer be anything but the catalyst for the apocalypse.

It is no longer a matter of opposing writing to telegraphy nor authentic time to technological facticity, but rather of "real time," of the play of a politics of value. Such a value question could not long be dominated by a simple calculating comprehension of the law of real time. And a political economy for today can only be a political economy of memory.

Memory and Politics

The contemporary issue of the *who*'s relation to the *what* is characterized by a decontextualization resulting from a new industrial synthesis, from retentional finitude, whose spatial dimension is deterritorialization, tearing the *who* away from its ethnic markers, and whose temporal dimension is real time. This leads to a simultaneous disappearance of "deferred time"—literal, historical time—and of the value of knowledge; but more generally, the vectorization of land by speed is experienced as a disappearance of idiomatic difference in all its forms, including the uniqueness of local dialects, habitat as the end of art, and universities' "bowing" to techno-economic imperatives. Industrial decontextualization occludes différance; the issue at hand, then, is to know if "our" technological communities are, nonetheless, possible.

Telecommunications networks deterritorialize. But there are only telecommunications networks—networks identified by *what* is communicated. The network in general, whatever its "material," linked at a distance, synchronized, opens at a distance and near at hand at the same time: the network pathway, the cable, the connectivity itself structures the physical territory by distancing it from itself, by impacting on its simple unity—or, in a sense, by closing it down.

There is no "territory" without a network; there is always only a network, a framework: territory's "simple unity" is mythical. "Being" is social only insofar as it is outside of itself. And this basic, primordial "outside" signifies that territory and the community sharing it are framed by self-closure, only realized in "derealizing." The fact that territory is already framed, that it is nothing other than a network-to-come does not mean, however, that the conditions for such a framing are always the same: it occurs within a particular typology and a general history of such conditions.

The materialization (objectification) of such frameworks is also the dynamic of their alienation or de-realization; their exteriorization. Networks affect and dis-affect, organize and disorganize rhythms and memories. The network in general is, in this sense, programmatic. And further, transmission of programmatic rhythms suspends, from outside, other rhythms and programs through its opening to the other, while the becoming-material of frameworks, the objectification or exteriorization of territorialization in deterritorialization is subsumed within the technological tendency. Networks can be classed according to what they convey. Today, logical, material networks carry memory that is syntheticized both analogically and numerically. Language's "literal" synthesis has had its own, less invisible, networks, and this is why language de-localizes itself through writing, and, along with it, its territory. A techno-logical typology of networks would thus have to be a typology of the syntheses of memory's programmatic forms, which have had widely differing effects on their destination points.

An essential aspect of industrial planning is land development; it corresponds to a now-archaic state of industrial development: when syntheses function in real time, controlling the entirety of development and distributed by telecommunications networks reaching all local time frames, the global challenge becomes territorial control within the pursuit of de-

territorialization [*le ménagement des territoires dans l'aménagement de la déterritoirisation*].

Claude Martinand emphasizes that the network is

> at once the privileged form of inscription of a system in space and time, and the organization of space within a particular territory. Network and territory are thus mutually conditioned, and local reality is the privileged place of articulation between technical and social realities, with all local uniqueness connected to the geography and the history of the region. (Martinand 1998 (1986(, 35)

Here, the network is the avenue to territorialization as such: "a territory's unity and solidarity that develops there . . . are largely conditioned by the various networks serving it." Territorialization occurs as inscription in space: materialization, organization, instrumentalization. Territory is a space of organs; the network is an organ-ization issuing from a negotiation between the social and the technical, in which the *what* and the *who* are articulated. We have been following this theme through the hand in reading Heidegger's *Being and Time*, but in the previous chapter, we saw the hand withdraw: how could a *who* without hands be articulated as "its" *what*? "Development of new networks enables the crossing of the borders of preexisting territories and, in the end, profoundly transforms them, destroying them and reconstructing them differently" (35). The network always transmits something like an organized rhythmic flux; in this sense it is always already programmatic and articulates programs as a whole: it synthesizes.

Extension of the literal/literate memorization network led to the polis: space becomes political when it becomes a literate community—when the citizen is reading and writing. Political memory requires a literal/literate memory technology, and the city is the network through which written materials circulate. The isonomia of the citizenry, the condition of their autonomy, is unthinkable without their having equal access to memory, for its reading and its writing, "bi-directional terminals" of political memory's network. This is why Henri-Irénée Marrou strongly insists on the importance of the teaching of "letters" in the Greek citizenry's training: the new community's interfaces, which were themselves *who*'s, had to be simultaneously established and transformed in their very nature, integrating the technical automatism of the literal *what*, of *the document*

constituting the political already-there, which Husserl discusses near the beginning of *Logical Investigations* as the precondition of ideality.

But is a political community still the promise of today's and tomorrow's memory? Literacy's universalization took more than twenty-five centuries. During this time, written memory's preservation as the organization of retentional finitude has gone through several stages. Construction of knowledges and the strength of the civilization in which they operate are thrown into question at the point when the grounds [*fonds*][33] for objective memory (i.e., its forgetting) must be selected and classified. There would have been no Mesopotamia without the classifying and systematic cataloging of clay tablets in their baskets. [The Library of] Alexandria, François I's 1537 Edict of Montpellier, in terms of which a copy of every book sold in France had to be deposited in the royal library, the *nationalization* of memory during the French Revolution, mandatory public education in the nineteenth century, and establishment of France's Radio-Television Copyright Bureau in 1992 are high points at which the community acknowledged that it was nothing but its memory, that this instrumentalization itself could be the subject of decisions, and that a politics of memory always and completely determines a community's future.

Given that the industrial synthesis of memory is exemplified by real time, is this then a major obstacle to the creation of a community, a future? Is it free of the dissemination of idiomatic differences?

We have seen that to be able to read is not only to decipher marks but to be able to duplicate them and with them to produce new statements: the completion of an act of reading is writing, and all writing is also a duplication, a citation and a rearrangement of preexisting materials.

> Just as we cannot write any word containing anything other than the letters of the alphabet, nor complete any sentence with words other than those in the dictionary: the same with a book without sentences that can be found in others. But if the things I will say have a certain inner coherence, and are found to be so closely linked together (*connexa*) that one follows from another, this will be the proof that I have no more than borrowed these sentences from others, that I have not placed them in the dictionary myself. (Descartes, quoted in Marion 2007 [1975])

"Meditation, without writing, becomes evanescent."[34] Analogic and numeric duplicating instruments are now ubiquitous. Peripherals for digitizing text, images, and sounds are in the hands of every *who*.

In other words, the industrial instrumentality of the already-there has been transformed. Given the technical tendency's strong influence on economic investment, earlier models of data storage and memory organization have progressively been abandoned. This has resulted in a new situation, in which deferred time is in the process of co-opting real time's *power*. When devices for the reception—the consumption—of industrial memory become writing devices, real time becomes a power of repetition that can create, like the incalculable with calculation, without being emancipated from informational logic. The programming and editorializing industries can draw upon enormous archives: the entire patrimony of ancient Greece, the entire Latin heritage, all "published" on optical compact disks (and now increasingly online). And these materials are completely useless to the information industry, strictly speaking; their value is in being knowledge-repositories of informationalizing power. Yet in the end they remain patrimonial: their "public" is in the university. The industry's interest in these archives' development is in fact in selling new devices. This is a gamble for the future, though that does not mean that calculated anticipation, the tendency toward the saturation of risk, would in its turn be rationalized, "a-reasoned": telegraphy is the law of writing. It then follows that a certain latitude up opens through the law. The fact that this law is now affirmed as "economic" indicates that the economy itself has opened a space for political decision-making, a space where the focus is on the (re-)constituting of economic politics. This is not a matter of "putting an end to a crisis" but of starting a critique. *Tekhnē* is, in general, the production of forms and, through them, of judgment. When the technics of memory became orthothetic, the crisis in ancient Greek civilization produced the polis (the law, judgment of right), and the logos (the *epistēmē*; judgment of the true). Judgment as *krinein*: a *krinein* as part of différant industrial identities; they must be *invented*, like the Holy Cross.

Informatic programmatology is a grammar. It updates textual structures; the languages in which this re-structuration appears, such as SGML or HYTIME, HTML or JPG, allow for a loosening of units of meaning that could only have emanated from propositional grammar: Jacques Virbel has shown, in his concept of the material formation of statements required for the numeric formalization of texts, that type-dispositional structuration (orthography qua typography) of the written recording of statements produces meaning, and that to do—in this case, to organize

the spatial disposition of signs on a support, thus to temporalize and give rhythm to their future readings—is to say. This logic of informatic support, insofar as it leads to the rise of an other logic of language and more generally of the signifying elements it en-registers (including even textual reading practices), thus formalizes readers' behavior: this occurs/recurs with the advent of hypertext. Other fields such as artificial intelligence and systems expertise, the concepts of micro- and nano-computing, memory organization packets, heuristic rules, and inference engines are described by local semantics that are largely structurations of language into local literatures and rhetorics, deictics specific to that activity or that culture, and into syntaxes relating to their operational behaviors, which then give way to new logics far removed from the Standard English model. Accordingly, the language industry produces field-specific electronic dictionaries and grammars. The technical tendency inclines this apparatus toward multimedia, as formalizations integrating images and sounds, movement sequences, and body kinaesthesia: virtual reality and telepresence are no longer only aids for orientation within a past already-there, they are the prostheses of corporeal orientation in either distant or even nonexistent spaces, making it possible to be present at a distance through duplication of the body itself and the simultaneous articulation of somatic grammars.

In this context, advanced reading systems supported by computers emerge, exploiting the techniques of hypertext that promise a substantial evolution in reading—and thus in writing.

A combination of new texts/data and instruments make an entirely new mobilization of the already-there conceivable. Citation and arrangement of the various elements furnished by available patrimonic and informational sources open the possibility of a qualitative leap from a new reading and writing at "light-time" laminated onto an other, deferred time. Calculation at light-time, as information processing, then appears as a new condition for the irreducible textuality of texts—meaning of *traces* in general—in the incalculability of their effects.

This is all part of an industrial selection system. A politics of memory, favoring the construction of instrumental practices and cultures specific to new syntheses, would also control the negotiation of a criteriology oriented by anticipation, part of whose very essence would be immediate profitability. The question of media and of their current crisis (related more than ever before to technico-militaro-industrial complexity), must

also be analyzed from the same perspective. The evolution of this complex is developing immense capacities of memory-storage, accessible in quasi-totality, as a "presence" of the already-there, through the mediation of orientation systems relying on the specifics of the dynamic ground of objective memory, incommensurable with History's past, overturning all relationships among the three levels of temporal ecstasy. However, the most disturbing is still to come, in the industrial investment in the somatic and germinal body.

The Biological Synthesis: When to Do Is to Say

The political question, as we have seen, is that of industrial memory, that is to say, of the idiom.[35]

The "idiom" here is the *shibboleth*, the mark of a complicity inscribed in a language passing through the body, a somatic inscription of complicity in default (which monotheism calls "sin" [*faute*]).[36] Before the explicit and the implicit, there is complicity's com-plicity: the shibboleth of the other is what I know I cannot say, even while I cannot say anything else. If I am not in a simultaneously carnal and instrumental complicity with the other, in this originary bodily imperfection or impropriety that is a community's *as-one*, I can neither penetrate it nor set it in motion. This question of idiom is also one of technics.[37]

For Husserl, such complicity is reducible: it is the meaning of the imaginary variation revealing an inner core, allowing for no default of the *eidos*, or only for a faultless *eidos*. This is why plurivocity cannot be the future of the *logos*, and why the *logos* is not idiomatic. An irreducible plurivocity of the logos would announce its technicity. A defect has always already undermined the idiom.

"'Technics,' an absolutely overused word, is without doubt one of the least well-formed concepts of current discourse (which means that it's babbled about all the more)," Jean-Luc Nancy writes (2003, 43). This babbling is a modality of being-toward-death all the more inexhaustible given that today the issue is absolutely that of humanity's demise—which is also a way of talking about the death of God and of "the last man," since the real possibility challenging us today, appreciably practicable, is the last evolutionary stage of technics: the possibility of an artificial human being who is neither "last man" nor "overman."

The end-of-the-human question is one of "means"—of inventions—qua possibility of death, the end of our techniques, and first of all of our invention qua questions posed at the end. We ask at the end: where did the human come from? "At the end": how must this be understood? Invention, how must this be understood?

We have already emphasized the highly speculative ambiguity of the expression "invention of the human." "Invention of the human," "to ask at the end," "the question of technics" (Who asks? Who is being asked?): all these ambiguities lead to a conception of the idiom, of its memory, of its text, always working at the frontier of those "of"'s and "to"'s as shibboleths we can hear either as si or as shi—and that can always be inverted. At issue is the possibility of this inversion. And its virtue. We ask at the end, within this ambiguity: where did this invention, humankind, come from? What is it becoming? How is it proceeding? The question posed to us, imposed on us, within the double context of the technical topicality of a decontextualized humanity and of a deconstruction disturbing any assurance of imaginary variation as a question of shibboleth, that is, of idiom, which is also, at the same time, one of technics.

What happens today to the possibility of imaginary variation's actually accounting for technics qua "objective" deconstruction?

Imaginary variation is always anthropological. All imaginary variation must oppose a *phusis* with a *tekhnē*, in that it presupposes a divergence between the accidental and the essential, as it means to reveal an eidetic core. During philosophy's phenomenological period, this *phusis*, as the realm of essences, is that of the transcendental subject. On the contrary it is certainly not an anthropological subject in its requirement that will in principle pose the possibility of the anthropos's suspension with the worldview; thus the eidetic reduction becomes transcendental. The remainder of the operation is restricted by an irreducibly eidetico-anthropological horizon of an imaginary corresponding to a particular conception of humans, of our status, and of what we can imagine of our "possibilities," our origins, and the end of our being—a being necessarily ignorant of any total Becoming: without the possibility of this innocence/ignorance, no identity, no eidetic invariance would be possible. Since there is an eidetic embedding that is itself accessible through an imagination full of phantasms, do the possible variations on the theme of the human, and the correlative exposure of a human eidos, not limit all eidetic possibilities?—and is

this not, despite everything, the meaning of existential phenomenology's privileging of this "being that we are ourselves"?

If these connections between anthropology, the imaginary, the possible, and transcendental phenomenology call for the most extreme precautions, their terminology is displaced in such a way as to require a different approach to the question from the horizon on which anthropological evidence is suspended. Thousands of examples of this exist: technical and industrial efficiency pervade all layers of what formerly constituted the given human horizon in its depth and all the elements with which an existential analytic identified its world in order to make them the object of remodeling and rationalized trade. Oddly, industrial investment in the life sciences sought an extreme intimacy with individuals, bodies—somatic as well as germinative—being the chief object of all phenomenology. And such an extremity is obviously not without its connections to "the most extreme possibility." What is being interrogated here that seems both radically new to us and absolutely old?

The new: in its operations, molecular biology suspends its own axiom. This science, whose scientificity rests on the axiom formulated by François Jacob in 1970 (seventeen years after the discovery of DNA by Crick and Watson), "the [genetic] program does not take lessons from experience" (Jacob 1974, 30), is a massive technical and industrial possibility today: the real possibility of genetic surgery.

In 1978, Werner, Smith, and Nathan discovered the restrictive enzymes allowing for the dissection of DNA with the surgical precision of an instrumental hand. Yet while it is clear that such a discovery was possible only because Jacob's axiom guarantees molecular biology's scientificity, the axiom is in fact, and thus by law, suspended—at least from the perspective of the laws of the biological sciences as they are constatively supposed to account for the totality of lived reality.

Given that molecular biology posits the germplasm's possible manipulation through the hand's intervention by mapping out the living being, the program in fact *can* learn from experience. Thus, the very law of life is purely and simply suspended, in a kind of objective *epokhē* that is in fact operated by the world-thesis.[38] This thesis thus simultaneously becomes irreducible: it can no longer be suspended by imaginary variation and transcendental reduction. And it can no longer simply be put in parentheses and subsumed within a purely phenomenological investigation, since it directly affects the eidetic imaginary itself. The effective result of

this "objective suspension," given that we live within a world-thesis, is the appearance of features of a post-evolutionist theory. It is particularly interesting to approach these questions from the perspective of an artist who, extending the body in giving it a *third hand*, unhesitatingly writes: "What is significant is no longer male-female intercourse but human-machine interface. THE BODY IS OBSOLETE" (Stelarc 1991, 591).

Molecular biology, in its technicity, makes a departure from the laws of evolution possible—so long as one continues to admit that Jacob's axiom is its most synthetic formulation. Or, more precisely, molecular biology's effects, as applied to surgery, create the possible appearance of such a departure. One could go so far as to claim, perhaps above all, that it effectively makes it seem that the "laws of evolution" have been suspended at least since the invention of the human (i.e., technics), and that it is no longer possible to ignore this, at the very moment when this suspension attains a radically new set of effects.

The medium has no didactic influence on the germplasm, Jacob claims, because there is no direct communication between the germplasm and the soma [cell body]. But does this remain true for a *technical* medium? It may clearly be doubted, at least since the appearance of Australopithecus: apparently "we" left those laws behind four million years ago. And we continue to "leave" them, being today at a threshold, the brink of a gateway, at the moment of an immanent leap: the leap, precisely, toward which gene surgery seems ineluctably to be pushing us.

Imaginary variation, as the essence of the human, would no longer be practicable if its necessary outcome were the stable identification of an eidos. Marvin Minsky has invited us to engage in just such a variation, the consequences of which are so vast that we can foresee gene surgery (Minsky 1993). Minsky proposes that we imagine a *removable* human body, as opposed to the other variable possibility claiming a human *eidos* in which the actual body, the body proper, is essential, "body proper" effectively meaning un-removable.

In these two possibilities the central question is one of place.[39] What happens to place when it becomes possible to talk of telepresence? At the beginning of his piece, Minsky posits that virtual reality describes the very functionality of the rapport between the brain and the rest of the organism. He thus separates these two a priori: a brain could control another body, no matter which or what body—the body proper thus does not exist.

Virtual-reality prostheses consist of display-screen goggles and a "data-glove." The goggles show the nonexistent virtual space, simulated in all of its physical features, which may exist elsewhere but are reproduced virtually on the goggles' screen. With this screen-and-glove technology, a user can control a robotic apparatus at a distance; this is tele-presence. What the user sees is what the robot "sees" in the space before it. The data-glove and the robotic hand are synchronized; every gesture by the user is copied by the robot, but the user will also feel all the effects of the robot's actions. If, for example, the robot is instructed to tighten a bolt with a wrench, the gloved user will feel the wrench's weight and the bolt's resistance, as they are visualized in virtual space.

If my body's "properness" is its *un-removability*, its being solely *mine* in this sense, the question is one of "mine-ness." Is it possible that absence of a body proper could allow for "mine-ness," for ipseity and idiom? Or do possibilities of "mine-ness," ipseity, and idiom rather reside in—are they not in an absolute complicity with—the possibility of telepresence and virtual reality?

Virtual reality and telepresence being according to Minsky only the highlights of the mind's molecular structure and the brain's organization, we can and should prepare ourselves to extend human tools through industrial faculties on the inside of our skulls. Here, as in the case of genetic manipulation, technicization is no longer an exteriorization but rather an interiorization through the organism's *re*-organization. As Minsky says of his variation:

> Imagine a person, in the next few decades, buying a brain-direct interface—grounded in nano-technology. A very fine needle would be inserted into one of the liquid-filled cavities of the brain, and then a powerful computer chip—very thin, mobile, resembling a tiny piece of film—is injected. Next, this remote-control device is ordered to send millions of miniscule fibers connected to a sensor controlling what is happening in the brain. Working patiently inside the skull, the implanted computer uses the powerful techniques of artificial intelligence to recognize the intentions represented by the structures of cerebral activity. When one has the idea of moving a finger, the implant signals it to the virtual reality computer: 'My master wishes to move a finger.' And we would have no more need of the clumsy 'data-glove' of the 20th century.

> But even this nearly telepathic system is too indirect. Why did we first wish to move the finger? Probably in order to accomplish some specific task—to flip a switch, make a fist, touch a friend. The finger's movement is thus not the real goal but simply a means for attaining it. In fact, wishing to play a note, write a letter, caress that friend—why not let the implant do it more directly? Perhaps even before one clearly knows what one wants to do. This poses strange questions regarding coherence and identity. The more capability we give the interface, the more the frontier between mind and machine becomes fluid. Who is interfacing with what? Where is the boundary between master and slave? And we could dream that this technology could even lead to an extension of the brain. *Why limit ourselves to the evolution granted us—why be content with two arms?* . . .
>
> We might thus embark on an exploration of other human limits in order to try to increase our biological capacities with new additions and extensions. (62)

Without asserting that everything addressed here also relates to today's very real practice of organ transplants, the question of whether it is all really serious need not even be asked: here, more than anywhere else, the opposition between seriousness and fantasy, between fiction and reality, is very doubtful. Within this horizon, which is difficult to conceive of as eidetico-anthropological because it is fantastically techno-anthropological—within this science fiction that has governed industrial and military research in the United States for several decades, the exercising of imaginary variation as the *eidos* of the human has become eminently problematic: like every other invariant, it is pure possibility. No other "faction" resists. And this possibility, which cannot simply be such a "faction," is no longer actually that *of* the human.

If what Minsky says is true, the issue is no longer one of knowledge. Nothing allows us to reject Minsky's story more than the story of gene surgery or of organ transplants in general. In these two cases, the question is one of fiction's very possibility. And in the surgery's case, the fiction is already real. It is not real if "real" is what conforms to the laws of nature, because here there is no more law of nature. The real is no longer the *real* real when the world-thesis is suspended by the world-thesis. This fiction-making power, which no longer simply refers to the category of possibility if this refers to reality, begins essentially linked to the *what*'s technicity, consequently also avoiding the Heideggerian analysis of possibility, and

is not a stranger to the Declaration of Independence's performativity as written and signed by Thomas Jefferson, for whom

> one cannot determine, and this is of great interest, the force and the striking power of any declarative act, if independence is *stated* or *produced* by this articulation. . . . Is the good that people have already done in fact and only a result of the Declaration's emancipation? Or rather does it emerge with its writing and signing? . . . This obscurity, this undecidability, between, one might say, a performative structure and a constative one, are *required* to produce the desired effect. They are essentially in the position of a law as such, spoken of here as hypocrisy, equivocality, undecidability, or fiction. I would even have to say that all signatures are thus affected. (Derrida 1988 [1981], 20–21)

Within the paradox of molecular biology qua technology, one also cannot "determine, and this is of great interest, the force and the striking power of any declarative act, if independence"—but of what independence is this thus a question?—"is *stated* or *produced*." One cannot not state that the bio-technological act is produced "performatively," if one can as well say it when it is a matter of doing, not only a statement but a living thing, and this performativity brings with it, at the same stroke, a constativity of a quite singular kind: the statement of a possibility—that is, also of a performativity brought about here solely through the enactment of a constative, if we agree that experimental science asserts its pure constativity in ascribing to itself a descriptive coherence that absorbs the very act of experimentation. The structure of the biological synthesis of the living being's memory is perfectly homogeneous with what characterizes analogic and numeric event-ization: the absolute disruption of the biological event's status.

And this disruption is retroactive: what does it mean to state a possibility? Must possibility precede its real-ization? Must it be stated retrospectively that a possibility was suspended there, before? This last question more generally regards the event's structure within modern science—within techno-science—that has become technics and technics become science. Such a modern science crosses science, philosophy, ethics, and politics even as it spans media. It is the question of fiction out of which we must now think the possibility of truth.

If "'fiction' is the vital element of phenomenology, as of all eidetic sciences" (Husserl 1980 [1950], 227) resulting in the extreme privileging of imagination, then what *is* imagination as the capacity for *inventio*, whose

further "result" renders any exercising of the imaginary variation impossible? The imaginary variation is in crisis because fiction is its negative operator: I can produce variety through a possibility that is imaginary and fictive, and in doing so I come back to what resists my fiction: not the real but the *eidos* qua invariance, qua "constant coincidence of variants." And yet the gap between the fictive and the real, in that it presupposes the stability of some ontological ground, is here suspended by "reality" itself, which becomes a science fiction bringing about an eidetic absence, a default of *eidos* or, rather, default qua *eidos* and *eidos* qua default. The sole constant co-incidence of variants persisting within the "human" *eidos* is the "technical" *eidos*; that is: fiction, default (of being). Husserl's *Logical Investigations* establishes that there are dependent objects corresponding to eidetic solidarities arrived at through imaginary variation, which *Experience and Judgement* (Husserl 1979 [1948]) presents as embellishments. Is technicity's *eidos* dependent on the human *eidos*, or does the question not suspend *the eidos's eidos itself*? Does not the technological *eidos* seem, as Jacob's axiom does for molecular biology (i.e., for itself), to suspend the category of the *eidos* in terms of its effectivity? This irreducible *non-eidos*, this "*eidos*" of the not, is not a fictional negativity but a positive fictionality. Here we face the question of filling-up: the intentionality comprising humanity's essential impetus is filled up qua suspension of the very pertinence of the matter of human essence, in its technical actuality.

If the structure affecting the signature is not foreign to fictional technical performativity, nor is the shibboleth of which all marks consist, nor the border it initiates—nor the aporia of/at/as beginning, of origin and of rupture-in-différance as emergence of possibility as such. We have seen that if grammatology "must not be one of the human sciences, [this is] because is posits first of all, as its proper question, that of the name of man" (Derrida 1976 (1967(, 83), and that if "intentional knowledge" discovers the origin of its possibility [as occurring] *before* the human, as merely "the emergence bringing about the appearance of the *grammē* as such," in an attempt to determine the conditions of such an emergence, the real issue is technics. This is also true of shibboleth: technics is idiom, which would also mean that the "as such" is not the most profound issue.

The passage from genetic to non-genetic is the aporia of the first "present," the first temporal ecstasy of the past, as the link to a past that has never been present and that marks a present not linked to any *past* present: a non-present present. In turn, this is the question of passive synthesis (84) of aporia strangely recalling the fictional act of Jefferson's signature,

the paradox of the externalization of "qualities" nonexistent *before* their exteriorization.

There is différance before as after the anthropological rupture [*coupure*], a there is that, however, is no longer "after" as "before," "as" that is the possible understanding of both a non-difference and a difference between human and animal. The Ephraimites and the army of Jephtha understood neither the difference nor the identicality of a shibboleth they simultaneously shared (and without which their difference would have had no place to be inscribed) and did not share—which is their "as." They did not understand because they could not do it—could not make the sound, could not speak it. If they had understood, if they could have made the proper sound, they could have made peace: they could have co-existed. But then there would no longer have been anything to understand: no more idiom. Thus it is possible to be human and animal: the différance would be as much their similarity as their difference, but the one would never know how to access the other's différant speech. This différance, which is not defined in the same way on the two sides, which can only be heard, we acknowledge in our pity for the animal who does not have the power to name—not even the name of God. But this is also a matter of the name for "the human," if it is true that it is announced and pronounced as a new rupture and a new shibboleth of technics. This is a *passage* that is certain but unknowable and similar to what will remain always to be thought: to be spoken.

In the end, the issue is one of the specificity of life's temporality when this takes the form of an inscription of the living in the non-living and the non-living in the living, when it is spacing, temporalization, differentiation, and differing through, from, and in the dead body—a certain rapport with death. This articulation, fold, border, is technics, and every border is technical, "a border is never natural." Every border: every mind [*esprit*],[40] every idiom. This rupture, the technical one, is all of this at once: mind, idiom, border. All attributes always circumscribing the *Geschlecht*. The humanity of human beings can only ever be spoken as an idiom and thus as a universal idiomaticity—though one that is always localized and to be understood in a particular, privileged place. The question of "the name of man," which arises throughout Derrida's work, most notably in *Heidegger and the Question* where, as in *Of Spirit*, the central question is that of the animal, of technics and the question, where the claim is of the

> irreducible link to the question of humanity (versus animality), and of a humanity whose name, like the connection to the name of the "thing" that, if one can be allowed to say it, remains as problematic as the language in which it is written. What is one saying when one says *Menschheit, Humanitas, Humanität, mankind,* etc., or when one says *Geschlecht* or *Menschengeschlecht*? Are we saying the same thing? (Derrida 1989c (1987(, 419)

What is being aimed at here; what convergences, what resistances, when the "human" *eidos*, or its default, becomes a variable in the imaginary of these disparate languages? What in the world resists the *epokhē*, whose irreducibility is the shibboleth marking a *Geschlecht* in opening up a world, that is, a *geist*? But the border is uncertain, since "the stone is without world (*weltlos*); . . . the animal is poor in world (*weltarm*)" (76). What does "poor" mean here? " . . . if it is poor in world, the animal must still have *world*, and thus *spirit*, differentiating it from the stone that is without world: *weltlos*." But "the world of the animal" is not, for Heidegger, "at the same level as the human world, since

> only an entity which, according to the meaning of its being, finds itself, in existing, as though already having been and exists constantly in a mode of being-as-having-been. This affect ontologically presupposes a present-ification, in such a manner that *Dasein* can be re-called to itself as having-been. The way in which stimulation and sense-impressions, in a being that is merely living must be ontologically defined, how and where, in general, the being of animals, for example, is constituted in "time," these are problems that persist. (Heidegger 1996 (1927(, §68).

Commenting on a similar passage, *Of Spirit* objects that

> this analysis . . . remains focused on re-introducing the measure of the human through the same route it pretends to critique: the distinction can be known through loss or deprivation. This is anthropocentric or at least refers to a "we" in inquiring into *Dasein*. It can only appear as such and be meaningful in a non-animal world, from *our* perspective. (Derrida 1989c (1987(, 79)

The issue here is clearly one of a rupture in différance requiring further specification, and of the difficulty of the as such, a difficulty that rightly returns in Derrida's continuing commentary as a potency/impotence similar to the relationship of the Ephraimites to the *shi* of shibboleth, which they pronounce *sibboleth*:

> The animal . . . does not have world because it is deprived of it, but this privation means that its not-having is a mode of having and even of a certain rapport with having-a-world. The *without* of *without-world* does not mean the same thing, does not assert the same negativity for animal and stone. Privation in one case, pure and simple absence in the other.
>
> . . . The animal . . . can have world. Heidegger speaks of "poverty" (or privation) as a form of *not-having* within the *able-to-have (Armut (Entbehren) als Nichthaben im Habenkonnen)*. This potency, this power, or this potentiality clearly do not have the same meaning as the Aristotelian *dynamis*. Here it is not a virtuality oriented by a *telos*. But how can the return of this schema be avoided? . . . The animal has and does not have a world. (79)

Derrida refers here to the same structure as that of the "first" present that is not present. In the same way, the Ephraimites can and cannot "have" difference: they can have it in speaking, and in speaking their language, saying sibboleth; they cannot have it in not being able to pronounce shibboleth. And the as is already evident. But this is still not Heidegger's as such. "The concept of world . . . is nothing other than that *of spirit*. Spirituality, Heidegger insists, is the name of that without which there is no world. . . . The stone has no access to being, no experience. The animal has access to being but—and this is what distinguishes it from the human—it has no access to being *as such*" (81). The question of the *as such* is that of différance, and of the difference between différance before and différance after rupture qua technics: the animal can have world but does not make it; it knows world in some way without the power to make it, first of all because it cannot speak it. To make—to do—is to say. "This inability to name is not first and foremost linguistic"; it is rather an inability to focus on an objective [*à viser*]—an *eidos* or its default. *To do* and to test, to try out a variation *as* imaginary. The enigma of linguistico-idiomatic difference in shibboleth, in fissure, are also the animal's: the enigma of doing [*faire*]: a case of the hand, in fact—of technics. All the ambiguities of Heidegger's humanism, and of his "political adventure," tend toward this difference, which it is also possible to understand and to do [*faire*] within the verb "to do," as between a *shi* and a *si*, and toward the ambiguity of its ontological difference that must be done, enacted, an ambiguity that must measure the irreducible gravity at the conjunction of the contemporary bio-techno-anthropological context and its latent eugenics, since

> the expression "poor in world" or "without world," like the phenomenology on which it rests, envelop an axiology regulated not only by ontology but by the possibility of the *onto-logic* as such, by ontological difference: access to the being of being, and then erasure of erasure in order to understand the world's coming into play, and first of all a world of the human as *weltbildend*. *This teleological humanism* . . . remains *right now* . . . the price to pay for the ethico-political denunciation of biologism, racism, naturalism, etc. (87)

The fundamental question is of technics as molecular biology delivers it to us today in a simultaneously absolutely original and infinitely antiquated way. In reality, the moment of rupture is the already-accomplished transgressing of Jacob's axiom for molecular biology: establishment of epiphylogenetic memory as the possibility of transmitting individual experience beyond the individual's life, the possibility of a sur-vival in which "the human" is merely an "effect."

That memory could be maintained beyond the body through organization of the inorganic, up to and including the current disorganization and re-organization of the organic, having passed through neolithic refinements and emphasizing the transformation of conditions through "the pressures of selection"—already molecular biology's axiom has been suspended. What we call "human," the technical, is but suspensions—deriving from the archi-suspension, the default of origin.

Preservation [of memory] beyond the body—outside of the body proper—already contains the possible disappearance of the body proper, of "mine-ness." Such a technical preservation intrudes upon the Heideggerian question of the already-there in its broadest sense, but because it is never treated as an "epiphylogenetic" question there, the existential analysis treats the already-there from an anthropocentric perspective. It may not really be possible, however, to do otherwise, within the immediate threat of philosophical biologism. What would we want to salvage from "the human," other than biologism? What would be rejected this biologism? In other words, what are we searching for in imaginary variation, what do we want to maintain, despite everything, in "the human"? We search for "the new," the Bergsonian name for the improbable. We want to keep it. Yet, at the same time, claiming that "being what we are in ourselves," we are tempted to exclude it. Technics, so difficult to identify from the beginning, is a formidable acceleration in the production of the new. What frightens us in this "new" that we also want to maintain? The disappearance of the human, and with it, of the new.

It is of little importance to us to know if this sort of "new," this accelerated production that no longer arises simply from the differentiation of the living being through genetics, if it begins with the human or before it. We see that the question is no longer properly of the human but of experience and its transmission in conditions where genetics or epigenetics are at work out of a certain default of being, an eidetic default. What is terrifying about eugenics is the possibility of default's elimination, that is, elimination of the end, of death—in effect the possibility of the impossible: a perfection that would amount to the exhaustion of all possibility of the new, if it is true that the new results from originary "failure."

The fact that this, the test and price of default, occurred before the human not only in ape societies but perhaps much earlier in the pre-history of animality, does not change the fact that *that* remains the question, here, in today's default and technics, and that the "human question" is merely a very limited perspective on this fact. Nonetheless, the appearance of the human coincides with the rise of a sudden hegemony of the epiphylogenetic within the developing process of differentiation. "The human" is precisely this hegemony. And its "end"—preserving, above all, the word's ambiguity—is [this hegemony's] extension. Idiomatic difference and its inscription in a shibboleth totally coincide, at the horizon of a technical memory marked in the body—and elsewhere.

So, then, is political urgency not, in this context, the denunciation of an assurance of human life, as difference has already framed the question—as much as the necessity of a discourse on life [*vie*] and survival [*sur-vie*]? Such teleo-logism must be rejected (just when it must also be seen as necessary and positive): technicization of life is inescapable. The issue relates to that of the as such when we bring its various elements together—the question, the animal, and technics—and thus also, death—, this then becomes a matter of animality and "life" that threatens the deconstruction of *Being and Time* and its "order, its implementation, its conceptual apparatus":

> But has *Dasein* experienced death *as such*, or by anticipation? What would that mean? What is being-toward-death? What is death for a *Dasein* that is never defined essentially as a living being? It is not a matter here of opposing death to life but of asking what semantic content to bring to death in a discourse for which the connection to death, the experience of death, remains unconnected to lived life. (88, n. 2)

The most terrifying thing would be for *The* Human to exist. It does not exist, any more than Language. Humans exist, and all language is always already languages—and yet all shibboleth, and all articulation of a shibboleth, can always attempt to install itself as the shibboleth, the articulation. Moreover, it must be so: if there were not the shibboleth (in common, shared among other shibboleths), there would not be this "shibboleth" that insists, resists, consists of not existing.

The shibboleth is technics. The idiom is supplementarity insofar as it becomes the (re)constitutive dynamic of the *who*, the idiom as a case of the *what*. So, then, what constitutivity of the *who* can we still envisage—and that must be envisaged?

Sciences of "Cognition"

With the sciences called "cognitive," for the first time in the history of Occidental thought, technics becomes a heuristic force, and a new explicative paradigm finds its identity in the concept of cognition conceived of as machinic: "it is not science fiction, but a true science, founded on a theoretical idea as profound as it is audacious: the idea that we are, at base, ourselves computers" (Haugland 1989, np)

There is no longer any difference between the *who* and the *what*: to explain the *who* would be to understand it as a *what*, and a specific *what* would guide the *who* in and to its auto-comprehension. The study of cognition understood in this sense structures the convergence of disciplines such as psychology, linguistics, psycho-linguistics, anthropology, ergonomics, the neurosciences, logic, philosophy, artificial intelligence, and robotics, all deeply influenced by "the model of computer power" according to which "the natural and the artificial are admitted on an absolutely equal basis to the field of study" (Andler 1983, 5). Cognitive science's initial, "orthodox" model posited that reasoning is nothing but calculation, the "application of a set of elementary operations selected from a particular, finite inventory." This is a reference to the Turing test, and to the concept of the universal machine that the phenomenon called "cognition" assigns a priori to all technological functions of animal and human behaviors. As a result, the concept of the abstract machine is exported to the mathematical field, where it is expanded in a technological context, in which it is then reused as a fertile, "originary" heuristic guide for understanding cognitive phenomena in general. Through the simultaneous

extension of the concepts of information and of the abstract machine, this consolidation of the various sciences attempts to work out a genetics of differing levels of cognition. This involves understanding how a physicochemical level can engender a biochemical one, how this biochemical level can produce neuropsychological functions, and, finally, how both the linguistic and the social emerge from the neuropsychological level of cognition. At the same time, the cognitive sciences are called upon to interpret, from their perspective, a forceful evolution theory: the final intention of this dynamic cluster of "emergences" is nothing less than a general theory of evolution. Given the technical nature of their combinative model, it is strange that the cognitive sciences have not integrated the technical event qua exteriorization of memory—qua pursuit of life by other means than life; that is to say, the essentially epiphylogenetic nature of knowledge—into their modeling.

Within the industrial context that makes the cognitive sciences possible, as a last resort their goal is to characterize, not cognition, but knowledge. Though the concept of cognition thus assembled can be specified a priori neither anthropologically nor zoologically, the fact remains that in a techno-scientific context, its ultimate goal is the machinic modeling of human cognition; it cannot avoid the matter of specifying—defining—human knowledge within the general phenomenon of cognition, both synchronically (in terms of the conjoining of subcognitive, cognitive, symbolic, and social levels) and diachronically (in terms of the evolution of the living being and, beyond that, of the living being's non-living creations). At the same time, through their reappropriation of the abstract machine's mathematical conception, they place the technological artifact at the very heart of their heuristic project, apparently giving no theoretical relevance to the technological fact in the history of life. As a result, the process of corticalization taking place simultaneously with the tool's appearance—creating a new rapport between living being and environment, mediated through an artificial layer qua artificial memory as essential to human being—is not sufficiently understood: the force of the erasure of traditional metaphysical animal, human, and technical oppositions thus becomes a weakness in cognitive science, concurrently erasing the dynamic characteristics inherent in cortex/tool development—the temporality of the process.

Cognitive science thus ignores the fact that human knowledge is technological in its essence, that there is no possibility of knowledge without

artificial supports for memory's inscription, and that the concrete characteristics of these supports, as organized inorganic matter, constitute all cognitive human operations. In positing a priori that a machinic simulation of thought, as production of a prosthesis of thought, is conceivable, the cognitivist model forgets the originary role of the prosthesis in thought: what cognitive science does not think is the coupling of the *who* and the *what* as older than either the *who* or the *what* as such.

Cognitive science trivializes human cognition's technological dimension, as Alan Turing does with the concept of the universal abstract machine within a technological context; both seem to say that:

1. The universal model's functionality, a priori transferable to some support, remains theoretically independent of the qualitative performances of the support, most notably its processing speed: "Since Babbage's machine was not electrical, and since all digital computers are in a sense equivalent, we see that this use of electricity cannot be of theoretical importance" (Turing 1964 [1950], 10).[41]

2. It is necessary, however, to take this factor into account in order to evaluate the a posteriori performance of an a priori model: "Electricity is normally present when rapid signals are required." But rapidity plays no theoretical role in the process, speed remains a "trivial factor," and "provided that it functions sufficiently rapidly, the digital computer imitates the behavior of any machine in discrete states" (12).

What would "sufficiently rapidly" mean here? This is never questioned. Nonetheless, it is entirely the question. Turing and others assume the support's (theoretical or practical) neutrality.[42]

At the same time, Turing carefully isolates the question of an essential technicity of knowledge, more specifically of the memory inherent in all cognitive activity, still claiming theoretical neutrality for technical memory—such as, for example, a book, a sheet of paper, or a computer's central memory—as implemented in his cognitive model. In order to describe the functioning of digital computers, Turing compares them to what he calls "the human calculator." This "follows the fixed rules . . . it is given in a book [and] also contains a limitless quantity of paper on which it does its calculations" (12). Yet the computer's memory "is a storehouse of information and corresponds to the paper of a human calculator, this being the paper on which it does its calculations or prints its rule-book" (16). For Turing, the sheet of paper and the book are merely aids for the

human computer, to which this could very well happen. "The human calculator makes its calculations in its head, [and the book is only] a convenient fiction. True human calculators in fact remember what they have to do."

According to Turing, memory is not originarily aided. It is clearly understood here that the aid would not be thought as such, and that the support would, in this context, be trivial, since Turing wishes to show that a formal, abstract model can be translated into different manifestations without being altered in principle: the concrete support is trivial relative to the universal, abstract model. However, this implies that in the theoretical model, the memory containing the machine's paper source must be infinite: retentional finitude cannot be thought through the formal model. This particular mathematics finds it impossible to envisage a dynamic that would manage to avoid the traditional hylomorphic schema. On the other hand, it would be equally incorrect to say that "true human calculators" can result from the support for their calculations' inscription.

The concept of the abstract machine envisaged by cognitive science thus appears to be contradictory: by the very nature of its project, the cognitive science model invalidates the hylomorphic partition common to traditional theories of knowledge (since a critique of the matter/spirit opposition can only be a critique of the matter/form opposition), yet it cannot maintain its own validity: a machine is essentially "concrete," materially specific, and the performativity of its supports is not trivial. Because philosophy has traditionally eliminated the characteristics of all supports for human cognition (with some—nearly always ambiguous—exceptions, Leibniz being the best example), it has generally also abandoned technics for a theory of knowledge founded on matter/form opposition.

By misunderstanding the concrete numeric machine, the computer, as a particular case of a knowing memory—knowing because essentially epiphylogenetic and always already installed in the prostheticity of a what coupled to the living (i.e., dying) memory of a *who*—, the cognitive sciences mistake the part for the whole: the whole is the coupling of the organic and the inorganic, which makes the memory complex epiphylogenetic. The result is either organic or inorganic. To privilege one of these two, disconnecting it from the other, is to fall into a metaphysics of the *who* or of the *what*—which comes to the same thing. And to mistake the part for the whole is to forget finitude: the machine's memory must be infinite for the model to be universal.

This model is contested today, most notably by the theory of multi-agent systems, showing that the Turing Test demonstrates an insufficient understanding of knowledge because it is individualistic:[43] knowledge must be understood from a collective point of view, as a social event. The models of multi-agent systems, inspired by ethnology, emphasize that animal group structuration already requires inorganic memory supports. Douglas Hofstadter had already used the anthill metaphor in his study of cognition qua phenomenon of emergence, starting with models resulting from automatic neuronal networks, from theories of auto-organization; Hofstadter's general idea is taken up by Edward Wilson in *The Insect Societies*:

> "Mass communication is defined as the transfer between groups of information that could not be transmitted from one individual to another." Certain informations, knowledges, or ideas are susceptible to existence at the level of collective activity without being in any way present at the lowest level. No information remains at this inferior level. This consideration will ruin the thesis according to which thought and "symbol manipulation" [of cybernetic varieties] would be one and the same thing. (214)

"The lowest level" is that of the sub-cognitive processes whose further study must be prioritized according to how they generate the emergent phenomena of higher levels. Contrary to the orthodox cognitive model, there is no longer any "central program" in the brain than in an ant colony: "the actions of ants are not the "translation into a language machine" of some "program at the level of the anthill." Only one thing counts, that is statistics: through their instigation, information circulates at a much higher level than that of [individual] ants. This is what matters for the nerve impulses in the brain" (ibid.). Animal societies in effect produce collective behaviors that should not be reduced to a sum of genetically programmed individual behaviors: the essentials occur at the group level without there having been any genetic programming of collective behaviors: the genetic would already no longer be essential. At the level of collective behaviors in insects, if not in memory, for Hofstadter this is less a matter of programmatic than of statistical phenomena, and the "mental" is a similar phenomenon of emergence: "the activities unfolding at this superior cognitive level will have been neither written nor foreseen by any programmer. This is the essence of what I call the statistic emergence of the mental" (ibid.). Is it possible, in the case of the anthill, to speak of

"shared knowledge"? and what "tools" would the anthill use to carry out this "sharing"? Experiments carried out by Dominique Fresneau on ant colonies consisting of many individual ants are particularly enlightening. An anthill consists of separate classes of "individuals" identified by their behaviors for "task-completion": reproduction, care of larvae, foraging for food, an "inactive" class. The number and proportion of individuals in each class is stable. If a "sociotomy" occurs (Lestel 1992, 179–211)—if part of a class of individual ants is removed—the anthill's equilibrium will be reestablished as "hunters" become "caretakers," and so on. The hypothesis is that environment reinforces or inhibits the various specializations of individual "agents" through the fact that each ant emits chemical messages, called pheromones, confirming the anthill's informatic modeling through a multi-agent system. These trace emissions are most salient here, in that the informatic model sees these agents as "reactive," meaning that they have no memory of "their own" behaviors. There are effectively two models of multi-agent systems: one in which the agents are called "cognitive," having an explicit awareness [*représentation*] of their behaviors and their past behavioral experiences, and the other consisting of "reactive" agents, without self-awareness or memory, responding to a stimulus/response schema. The behaviors of the individual agent in the anthill clearly follow the latter model. But if agents have no memory of previous behaviors; if their specialized behaviors are determined by other agents' behaviors, there must be a model of collective behavior inscribed somewhere, at least temporarily. In the case of ants, pheromones are the chemical traces inscribed on the ants' habitat as support—the anthill and the surrounding pathways marked by individual hunters—and as a mapping of the collective. Exteriorized memory is already clearly evident here: an inorganic support and the resulting organization of territory (the anthill itself).

But is it possible to speak here of epiphylogenesis? Certainly not in the sense that there is no question of a transmission of individual or collective experience.[44] And this is also why there is no organization of the inorganic through a technical tendency—but rather a structural coupling of the animal group and its surroundings.

In the cognitive multi-agent system, whose goal is to simulate more complex task-accomplishment behaviors (in the robotic domain), what allows for the "sharing of knowledges" is called the blackboard (Bachimont 1992, n.p.), on which the various knowledges of many agents can be

inscribed in/on a medium common to all the agents and yet not an agent; this is already an epiphylogenetic modeling.

In the final analysis, the separation between "reactive agents" and "cognitive agents" does not contradict Leroi-Gourhan's division between differing memory types, in which all memory at a "superior" level brings memories at "inferior" levels into play, just as a "reactive" level can give rise to a "cognitive" one. But it remains necessary to maintain the concept of the program despite its being called into question by various models of emergence, and this is less a matter of working through programs than of conceiving the programmatic differently—as an element of improbability.

Cognitivists cannot entertain the thought of program, organ, nor memory. Semantic imprecision and conceptual laxity reach their peak in Fodor's comments to Chomsky in defense of his (Fodor's) hypothesis on the "modularity of the mind," in an effort to restore Franz Gall's theories:

> As practically everybody knows, Descartes' doctrine of innate ideas is with us again and is (especially under Chomsky's tutelage) explicitly construed as a theory about how the mind is (initially, intrinsically, genetically) structured into psychological faculties or "organs" . . . Chomsky likes to speak of mental structures on anatomical analogy to hearts, limbs, wings and so forth. (Fodor 1983, 3–4)

It is most regrettable that Fodor ignores Leroi-Gourhan's rigorous analogy determining the actual conditions underlying an organic diversification external to zoology, and of the conceptual ruptures they imply. Fodor cites Chomsky:

> We may usefully think of the language faculty, the number faculty, and others as "mental organs," analogous to the heart or the visual system or the system of motor coordination and planning. There appears to be no clear demarcation line between physical organs, perceptual and motor systems and cognitive faculties in the respects in question. (4)

"Mental organs" that for Fodor here profoundly ignore the necessity of an organization of the inorganic and, correlatively, retentional finitude qua exteriorizing of memory, as is quite clear in Fodor's comments on Chomsky's claim that we "take for granted that the organism does not learn to grow arms or to reach puberty. . . . When we turn to the mind and its

products, the situation is not qualitatively different from what we find in the case of the body."

> If we allow ourselves to postulate innate faculties, memory is certainly a reasonable candidate. However, memory is not a faculty in this notion's Neocartesian sense. Having a memory is not the same as having a certain set of beliefs and, if memory is an innate capacity, that would only result in the fact that humans would have, at birth, a particular set of propositional cognitions. In short, I don't want to identify memory's structure with the deductive structure of a set of propositions. Memory is rather a certain kind of mechanism, analogous to the hand, the liver, or the heart. Memory seems actually to be a sort of mental organ, at least by hypostasis, in a sense that could never be applied, even by hypostasis, to the faculty of language. (Fodor 1983, 4–9)

Fodor can elaborate his theory of the mind's modularity through the "distinction" he makes regarding the word "organ": it would "contain" an innate propositionality qua faculty of language, and an organizing of the mind into modalities comparable to the structure of a computer equipped with "peripherals." This is an understanding of "mind" that Minsky legitimizes in his variation on the telepresence of virtual reality—which in its turn ignores the way in which Leroi-Gourhan, in 1965, anticipated the possibility of just such an evolution as part of the exteriorization process.

Jean-Pierre Changeux, outlining a neuronal anthropology through concepts of cultural imprinting and selective stabilization, does not ignore the importance of writing, and opens neuro-physiology to the question of an epiphylogenetic transmission of experience:

> With the development of writing, an extracerebral memory was available to fix images and concepts in a more stable material than neurons and synapses. It could be used to consolidate and complete an already broad range of events and cultural artifact, of symbols, customs, and traditions relearned by each generation and perpetuated without genetic influence. Mental images and concepts were thus able to survive much longer than the brain that had produced them in fractions of a second. How does this cultural memory work? The answer . . . involves the fascinating but still little explored realm of the links between the neurosciences and social anthropology and ethnology. (Changeux 1985 [1983], 281)

The fact that these mental images and concepts "survive much longer than the brain" means that they are preserved, transmitted, transformed beyond their "inventor," beyond responsive (epigenetic) memory, and

independently of the kind of genetic memory passed on through the germplasm. A new type of memory in the history of life appears with the human organism: with it the question becomes one of knowing where and how it is preserved and reproduced, and how it differentiates "concepts" and "mental images." Links between neuroscience, anthropology, and ethnography apparently must be well explored. But that would imply, before all else, understanding the impact of the technological event in the history of life. And we must ask: is it really the brain "that, one fine day . . . produced" concepts and mental images? In other words, is it actually "neuronal"? Or are not those neurons rather a particular case of memory support, functioning only—in an investigation of "neuronal man"—as an originary complex of memories always already simultaneously organic and inorganic?[45] What actually is the relationship between producer and product?: interaction prior to action, a complex and paradoxical process in which, contrary to all appearances, it is not at all certain that the producer precedes the product. In this context, one must ask: "How does this cultural memory-embedding happen?"

The fact is that writing is the most archaic of tools; thus, before we interrogate writing we must investigate the meaning of the tool's appearance *as* the development of extracerebral memory. The question of extracerebral memory, which today is structured according to new tropes of the synthesis of finitude—precisely those produced by the prosthesis that fascinates the cognitive sciences and to whose development they contributed—is the question of invention itself.[46]

If this is a question of conceiving of knowledge not only as a sharing but as a genesis, a becoming, the product of an innovative kind of work within a cumulative process, then knowledge's socio-genesis is clearly a techno-genesis. Knowledge, as an act, is produced, is not simply mobilized, is implemented as preestablished data, as the very process of transformation. Any "knowledge" that is merely a group of rules incapable of engendering new rules would not be a knowledge;

> the result . . . is not actually a real totality; it is that only with its becoming; for itself the goal is the universal without life, just as the tendency is only spirit lacking its effective reality, and the naked result is the cadaver that the tendency has left behind it. . . .
>
> One would thus consider all the less as a geometrician one who would know (by heart), externally, Euclid's theora, without knowing their proofs, without knowing them—in order to show them by contrast—internally. One would

> tend equally toward insufficient knowledge of the well-known relationships of the sides of right-angled triangle, acquired through measuring many right triangles. (Hegel 1967 [1807], 7, 36)

Because this conclusive knowledge contains contradictions, there is labor in the concept. Knowledge is labor. And yet labor, work, is accomplished through instruments, tools, techniques; and "truth is not like a product in which there is no longer any trace of the tool," truth preserves the memory of "conceptual labor" and the tools it implies. Hegel clearly does not see these tools as technical, but as related to a science of logic, having reconsidered the proposition's status. But there is no doubt that knowledge's essential instantiation in the instrument, in accident, would indicate a different view of contradiction qua speculation.

An essentially individualist definition of knowledge can clearly ignore the originary nature of the technical basis of knowledge: it need not take into account the fact that knowledge is transmitted from individuals to individuals, from generation to generation; that it is a memory that is always already exterior relative to the "knower" linked to an already-there. On the contrary, to question the socio-genesis of knowledges is to interrogate the nature of memory mobilized by all knowledge, as the precondition for all definitions of knowledge.

This approach is all the more legitimate in that it respects the cognitivist imperative: to be certain that cognition must be understood before the animal/human/machine division, as anticipated in the modeling of the behaviors of social animals.

"To know" is essentially to organize the inorganic and to reorganize the organic (to intervene in the process of selection). At issue is the inorganic organ qua organization of retentional finitude. Consequently, the cognitive sciences' fundamental issue is finitude. Joëlle Proust shows how finitude *is* the basic issue, and how this issue *is not* understood as such (as retentional) by the cognitive sciences: the issues raised by artificial intelligence must be analyzed in philosophical language to show the parallel steps taken by Kant and Allen Newell.[47] After having recalled (contra [the contemporary American philosopher] Daniel Dennett) that "the entire domain of pure a priori concepts that cannot properly be seen to have an empirical genesis" escapes into psychology, Proust shows that an informatic modeling of the kind Newell undertakes "requires that one accept the opposition between the 'psychological' elements and the 'formal'

components of cognition, derived from the Fregian opposition 'content of judgment'/'legitimization of the act of judging' . . . which proceeded to radicalize the Kantian opposition between factual genesis and the transcendental genesis of knowledge" (Proust n.d., 92). [The opposition is] between historical knowledge (in the Kantian sense) and rational knowledge (the entire matter of Husserlian communitization is here in question—as is retentional finitude, though that is precisely what this kind of analysis cannot see). An attempt at the universal is at work in Newell *as* in Kant, and with Newell, "the technical limits of artificial intelligence are secondary problems because they are limitations in fact. They do nothing but illustrate the finitude characteristic of the cognitive process as such" (ibid., 93).

Turing's trivializing of the support is clearly being legitimized. But what does finitude mean here? Like Newell, Joëlle Proust ignores the fact that the question is the Kantian one of time, of a sense of the internal, and of the transcendental imagination as an irreparable crack in the subject that, as such, appeals to the question of repetition, of habit, of automatism, and of the machine within the horizon of the end, of death.

Inspired by Heidegger, speech-act theory, and [the Chilean biologist] Humberto Maturana, Terry Winograd and Fernando Flores seem conversely to understand knowledge as sharing within a finitude created by an instrumental horizon, in which the *who* is originarily complicit with the *what*; and one might expect finitude to be included as well, as the ecstatic horizon of a temporality constructed being-toward-death and as always already technical access to the already-there. Yet one finds is none of this; the already-there is never brought up for examination.

Winograd and Flores's reading of *Being and Time* rests on a misunderstanding of its basic interest and its project. And their interpretation, which is not merely erroneous, is fundamentally opposed to Heidegger's very intentions. Finally and consequently, theirs is a non-critical reading of Heidegger: had they focused on re-assessing the Heideggerian opposition of interest and project, by simultaneously interrogating and preserving its internal necessity in Being and Time, they would have arrived at an understanding of finitude out of the already-there's prostheticity.

The confusion between interest and project is obvious:

> Our interactions with other people and with the inanimate world we inhabit put us into a situation of thrownness. . . .

> As observers, we may . . . talk about a hammer and reflect on its properties, but for the person engaged in the thrownness of unhampered hammering, it does not exist as an entity. . . .
>
> This confusion results from interpreting language as essentially a medium of action.
>
> Language cannot be understood as the transmission of information.
>
> Language is a form of human social action, directed towards the creation of what Maturana calls "mutual orientation." This orientation is not grounded in a correspondence between language and the world, but exists as a consensual domain—as interlinked patterns of activity. (Winograd and Flores 1987 (1986(, 35–36, 76)

This is what Winograd and Flores, synthesizing Heidegger, Maturana, J. R. Searle, and Jürgen Habermas, call "engagement":

> The shift from language as description to language as action is the basis of speech act theory, which emphasizes the *act* of language rather than its representational role.
>
> . . . speech acts create commitment. In revealing commitment as the basis for language, we situate it in a social structure rather than in the mental activity of individuals. (76)

All speech is here engaging (in an action) either the speaker or the listener, while rightly reproaching rationalism with analyzing language as a system of representations that cannot take account of language's very essence. Speech within being-in-the-world is ordered by the structure of this being-in-the-world as it is constituted through thrownness; it is the "structural coupling" of world and "speaking" (here we see the connection to Maturana). But thrownness is confused with interest. According to the types of illocution Searle catalogues, they are types of engagements.

This confusion erases the essential dimension of being-toward-death as the structure of finality, resulting in a misunderstanding of the rupture of signifiability in the utensil-nature of instrumental failure:

> The rationalistic tradition emphasizes the role played by analytical understanding and reasoning in the process of interacting with our world, including our tools. Heidegger and Maturana, in their own ways, point to the importance of readiness-to-hand (structural coupling) and the ways in which objects and properties come into existence when there is an unreadiness or breakdown in that coupling. . . .

> For Heidegger, "things" emerge in breakdown, when unreadiness-to-hand unconceals them as a matter of concern. (71–72)

At this juncture one might expect the question of originary temporality to appear. But entirely the contrary occurs: rupture only gives access to an understanding of being ready-to-hand as being-to-hand: Heidegger "sees representation as a derivative phenomenon, which occurs only when there is a breaking down of our concernful action" (74). As a result, numeric technology is confined to its utensil-horizon, which is then itself massively confused with the project; "originary" temporality—finitude—, as an issue, completely disappears. Such an analysis cannot understand the *what's* performativity as instantiation of the *who*'s constitutive already-there, a performativity seen as within language but limited to it:

> Computers are fundamentally tools for human action. Their power as tools for linguistic action derives from their ability to manipulate formal tokens of the kinds that constitute the structural elements of languages. But they are incapable of making commitments and cannot themselves enter into language. (76)

What does "making commitments" mean? And "enter into language"? Is it language that "makes commitments," or the speaker who "uses" language? Winograd and Flores have quite well understood that the speaker does not use language. To some extent the speaker is language, as a modality of structural coupling with world. But then is not the speaker to some extent this world? Or rather, would this not also be a question of thinking before the speaker/language distinction, between language and world, and between *who* and *what*? But then this would also be a question of being, before the language/writing distinction, and therefore between *computer* and language, the computer being a specific machinic modality of writing. The need to think a different connection to the *who* and the *what* is touched upon lightly, but missed. And in particular, the need to understand the essence of numeric machines does not arise: "a computer program is not an expert, although it can be a highly sophisticated medium for communication among experts" (77). Because such an assertion is of no interest here, it has the interest of showing that the *real* question has not been asked, and that, finally, Winograd and Flores have not managed to escape from the prejudice that trapped Turing and, before him, the "orthodox cognitivists"—and before them Heidegger, well after Plato: in the

functioning of an informatic machine, "of course there is a commitment, but it is that of the programmer, not the program. If I write something and mail it to you, you are not tempted to see the paper as exhibiting language behavior. It is a medium through which you and I interact" (123). The eternal triviality of paper. The eternal *forgetting* of paper in these thoughts that, since the *Phaedrus*, always see in it *hypomnesia* as *amnesia*, forgetting what is essential, and that "to meditate, without marks, becomes evanescent." This will be the great merit of Husserl's tenacity in addressing the question of retentional finitude despite everything.

All of our analyses of "light-time" and of event-ization have shown that performativity is everywhere, that there are acts and engagements in all prostheses synthesizing retentional finitude—on the very least support, and paper is certainly not the very least. Language is a singular case of the *what*, and its performative dynamic is a singularization of the *what*'s general performativity. It seems a bit scandalous to say that language is a singular case of the *what* since "language is not a simple reflection but a constitutive medium"—but this is precisely true of the *what* in general. As ecstatico-temporal structure and being-outside-itself, language appears already to be a coupling of a *who* and a *what*, and is even more profoundly the *what* as such, before any linguistic specification, which constitutes all temporality as access to the already-there and thus to the future. Certainly, language is a very privileged transmitter of the already-there. But at this point in our analysis, it is still only one transmitter among others, and it can absolutely not reduce their diversity, singularity, or idiocy, any more than it can reduce its own: its idiomaticity. And what is more important is that the already-there is accessible only as the *what* or out of the *what*, which must be defined each time as the age of retentional finitude: this is what Winograd and Flores's analysis, trying for a very modest yet meritorious articulation of the *who* and the *what*, does not actually touch. "Because of what Heidegger calls our 'thrownness,' we forget the social dimension of the understanding and the engagement he provokes," they write. But because they themselves forget the difference between project and interest, and because this difference, introducing ontological difference and the ages of being, forgets, in Heidegger's work itself, originary prostheticity as a factor of forgetting, Winograd and Flores forget the *epimētheia* behind it, thus constructing a *who* meditating on its "faults" and its forgettings in its ruminative and repetitive re-memorization of experience.

What the cognitivist model from Turing to Winograd—the orthodox like the heterodox—cannot think is the originary complex forming the *who* and the *what* in their maieutic process, thought qua temporality, and time qua inscription of intentional finitude in the principle of exteriorization subsumed in the technical tendency. This emergence is not genetic but epigenetic, which means performative as well: there is no unitary explicative principle that would allow an exhaustive assessment of genesis and that would at the same time have the voice of divine prediction (what else could we call an explication of thought wanting to conclude with its own complication, its co-implication in the un-thought and in the objects of its thought?). There is only a principle of in-determination, and finitude's future is improbable. The complex of *who* and *what* endlessly modifies the conditions of temporalization, and if it is obvious that the machinic individuation Simondon explores continues on through the delegation of instrumental competencies of the *who* toward the *what*, this delegation is still only operant to the extent that it includes a transformation of the link between *who* and *what*. It is possible to imagine the production of living machinic prostheses that are themselves mortal and in this sense anticipatory—today this is at the very least a possibility—, they would anticipate that the *who*'s epigenetic already-there had "preceded," if not "produced" them and remain there in their "associated medium."

A critique of Winograd and Flores must not appear to be a condemnation of Maturana's work, nor even an affirmation that a bringing together of their style of thought and hermeneutics would be sterile.[48] On the contrary. And the concept of structural coupling, most notably that developed by Francisco Varela, must interest us in several ways, in that he brings new elements to the question of flint/brain maieutics and more broadly, to the question of the rapport between the *who* and the *what* conceived generally as maieutics. It is true that Varela also does not avoid a complete forgetting of matter, that of paper as just so much residue:

> What defines a machine is relations; the organization of a machine has nothing to do with its materiality, that is to say with the properties of its components that define it as a physical entity. The organization of a machine implies a matter, but that is not what it is *as such*. Thus, a Turing machine is a certain organization; but there is, it seems, an unbridgeable gap between the way the Turing machine is defined and any realization (electronic, mechanic, etc.) of it. (Varela 1989, 42)

"An unbridgeable gap," it seems: a Turing machine does not exist. No machine with infinite memory can exist. It certainly would have nothing to do with materiality. Or rather, with reality, effectivity. As for the role of matter in the effective dynamic of machines, Simondon has taught us to understand that this is not at all trivial—notably as a process of concretization. Biologists' work, on the other hand, appears to be particularly fruitful, and in the preceding proposition, it was important to specify the difference between *allopoïetic* machines without an internal principle of transformation, *autopoïetic* machines, operationally closed, autonomous systems (i.e., living beings). An autopoïetic machine is self-produced, and in this sense it does not submit to exterior command; it is unprogrammable: its programmability is an (albeit necessary) illusion of external observation. This dichotomy is quite justified, and yet such propositions regarding the machine and matter, echoing François Jacob's comparison of a living cell to a chemical factory, undermine Varela's work on knowledge.

Ignorance of *this* complexity of the *who* and the *what*, as it is essentially materialized through the *what* as support, as inorganic organized materiality (that is, invested with the technical tendency), is widespread in sciences of "cognition" in all the ways we have seen—with the exception, still embryonic, of multi-agent systems theory.[49] We shall see in the final chapter that this ignorance is also confusion regarding the meaning of intentionality, chiefly because it is incapable of envisioning intentionality's longitudinality where the temporal object is produced.

The Question of Différant Identities: Who Programs What?

Although in his final writings, Heidegger ascribes the task of meditating on technics to thought, in a completely different sense from the eternal clichés endlessly rehashed by both "Heideggerians" and "anti-Heideggerians" regarding "the question of technicity," he seems never to have seen that technics as such provides some hope of at least the thought of difference, if not of its welcome. He frequently restates his central thesis: "the essence of technics is nothing technical."

Heidegger's 1962 lecture *Überlieferte Sprache und technische Sprache* [Traditional Language and Technical Language][50] presents a remarkably syn-

thetic development of the links between *tekhnē*, knowledge, and modern technics, within the thematic of linguistic information-processing.

If modern technics is possible, it is because *tekhnē* has

> since the dawn of the ancient Greek language, had the same signification as *epistēmē*. . . .
>
> *Tekhnē* is not a concept for doing, but a concept for knowing. . . . Yet to the degree that the principle of knowledge is supreme in technics, that principle furnishes out of itself the possibility and the necessity of a particular formulating of its own proper knowledge as soon as a corresponding science is presented and developed. That is an event, and the event occurred only one unique time in the entire history of humanity: inside the history of western Europe, and the beginning—or better, as the beginning—of the period we call modern times.
>
> If it is possible that the technico-informational paradigm of light-time can become, like cybernetics, the *epistēmē* of contemporary technics, it is because *tekhnē* is originally knowledge, and this allows that modern natural science is adjoined to it as a unique event.
>
> This results in a scientific and technical co-determination of knowledge[51] in which all things have become imperceptible phenomena When science joins with a potentially knowledgeable technics, the project of mastery and domination can be realized and nature is summoned to manifest itself in a calculable objectivity (Kant).
>
> But this is rightly this provocative summoning [*herausforderndes Stellen*] that is simultaneously the foundation of modern technics. It imposes on nature the need to furnish energy. (Heidegger 1990c [1989], 22–23)

Heidegger's thesis in "On the Question of Technics" is clearly visible here: to come to understand nature as *energy storage*. Yet this description is very weak. There certainly is storage, as an essential trait of modern technics. But rationalization of finitude qua retention is more violent, striking, and all-inclusive than energy storage and violence produced in "nature." Storage is only possible when there is, first and originally, retention (Heidegger obviously does not ignore this; he speaks of *Bestand*. But he does not speak of it *as* retentional finitude). Building haystacks and woodpiles, storage practices since the Neolithic, is only a particular case of memorization, of reserve, and of anticipation, giving rise to the appearance of techniques of memorization and counting as such; these are all already processes of tele-graphy, exactitude, and measurement from which

numeration, land surveying, and, finally, geometric ideality devolve: if technics and knowledge can be seen, if science can be joined to them, it is because to know, in essence (and much more profoundly, knowledge), is retentional finitude—tele-graphy in which calculation and the undetermined can never be simply opposed, and in which "knowledge" is knowledge of this finitude.

The specific telegraphy of which Heidegger speaks in emphasizing the informational nature of contemporary technics, and which is the most serious sort that can "happen" to human beings (after which nothing more can "happen") is the technicization of language.[52] Certainly, if language can become information, perhaps language has always already contained such a possibility. So it is possible to tele-graph a linguistic statement, to transform the plurivocity of an utterance into the univocity of signs—enabling a "certain and rapid" transmission.[53] "The mode of language is determined by technology." Folded into the univocalization of the plurality of voices by which we understand a true language, informational language—univocal, exact, and rapidly transmissible—destroys language. "This is why a poem, in principle, cannot be programmed." Everything that has been said about Morse Code affects writing in general—especially exact, orthographic writing. And everything that has been said about information could be applied to writing as an instrumental medium of knowledge. The contemporary issue of the relationship between information and knowledge and of the informational storage of knowledge, as the basis for retentional finitude, may seem clear—but only through mistaking its very nature, and despite the allusion to the question of speed that was already specified in *Being and Time* as meriting close examination. Such a fragility appears radically in terms of "traditional language":

> What is here called "natural" language—current, nontechnicized language, I shall in the lecture's title call traditional language [*uberlieferte Sprache*]. "Heritage" is not a pure and simple designation but rather a preservation of the originary [*anfänglich*], protection of new possibilities of a language that is already spoken. (43)

What is "current, nontechnicized" language? A certain coarseness in thinking about language, also evident in an analytic tradition scorned by Heidegger, is flagrantly visible here: cultural heritage and language can only appear within the horizon of the already-there, of facticity, of technicity. Contemporary technics is a new form of the already-there, of

awkwardness and equivocity within its retentions' exactitude, prior to the negation of "to speak" [*dire*] qua "one's own" [*propre*]. No doubt, the ethnic heritage of soil and blood is occluded in it, and this must be ascribed to Heidegger. Without denying the suffering this gives rise to, and while acknowledging the considerable number of difficulties resulting from this occlusion, one must ask: should it be regretted?

Contemporary technics is characterized by memory's artificial preservation (insofar as it is also memory's production as such) and the emergence of rules governing its functioning, thereby producing a law—not merely a rule: this memory's finitude is also its absolute irregularity; the rules for its creation are engendered by the age [*époкhalement*], supplementally, out of a default, an idiocy, an originary state of disorder: originary exception.

When the focus becomes memory's industrial exploitation, given that grammar is performative in its essence (which is why the exception, qua undetermined, proves the rule—while the rule determines the exception), the always-already performative synthesis of its rules means that idiomatic difference's ethnico-territorial nature is dissolved. This in turn leads first to a radical modification of time's work, then to that of all forms of (fundamentally idiomatic) thought processing, and, finally, to all knowledge systems affected by the new networks, whose editorial functions become extremely polymorphic, forming a complex of interdependences in which each subnetwork overdetermines the others.[54]

Another significant result is that this device used for a generalized translation of knowledge systems, expertise, and social interactions into information, technical training, look, and "lifestyles": causing even hysterical pleasures to seem just so many incommensurable frustrations; and the general question of transition presents itself *as* one of translation and of the interfaces between increasingly technico-institutional and decreasingly ethnic communities. This is particularly apparent in geopolitical divisions negotiated by international organizations: ethnic identities become murderous, futureless phantasms entirely controlled by development; "the people," wanting—needing—the right to maintain their cultural traditions, are able only to try to participate in the redistribution of "development's benefits." This question of transition, translation, and interface is dominated by the irresolvable difference between information and knowledge, a differend haunting all knowledge systems, structuring all specific cases of difference and all divergences of interest—interest widely understood as dividend. This differend is in turn governed by

the fact that information is commercial by nature, as well as because it creates a disconnect with risk qua chance. But to conclude from all this that "money" is our social evil is merely to catch *a* glimpse of what then becomes poor and neglected: free-market capitalization [*capitalization décontextualisé*], in which money's circulation is principally labile and speculative, and essential to the development qua emergence of the technical tendency. This is the impetus for information's development, which has a secondary effect on knowledge and on every form of capitalization and patrimonialization—of which knowledge is but one example. As such, capital is not *the* evil, even if it can be *an* evil as the logic of impoverished risk and even if capitalization and its current speculative forms causes suffering—the suffering of some of the privileged who remain primarily moral while the vast majority of the planet's billions face suffering in the flesh as well as in dignity. To demonize money is precisely to take the logic of risk to its negative conclusion and to completely misunderstand the fundamental nature of what must be done.[55] On the other hand, to allow the imperatives of calculation and the "pure law of capital" to dictate such a decision is to abrogate one's responsibility before the real task of politics, which is to think.

At the heart of this crisis, as a region of critique and decision-making, the program seems to belong more to the *what* than to the *who*, much too slow in its connections; new technological modes of reflexivity appear, being in this case new rules for interpreting communal memory, which thus transforms it through the simple fact of eliciting[56] its operational rules—this is the general meaning of finitude's constitutive performativity. Here, today, this general sense is a condition of speed taken to its very limit, light-time, as the attempt at the conquest of mobility qua implementation of the technical tendency—but which releases the formidable power of indeterminacy, which then appears as the irreducible possibility of monstrosity.[57] The resultant "ubiquity," the "false day," and the destruction of spatiotemporality affect the very structure of bodies and, making them "detachable" like tools, ineluctably suspend bodies' *my own*, and their "properties," such as their inviolability, physical remains, and graves, even while the cryogenics industry goes about its business. Tele-presence, tele-life, and even tele-death (the freezing of the living and the dying is just that) interrogate the organic far beyond current deterritorialization, moving toward the possibility of the body's *ungrounding* [*déterrainisation*]. Analogic, numeric, and biological technologies in their

entirety are a unified memory-imprinting process resulting in massive and brutal imprinting of finitude: of inscription, preservation, processing, transformation, and diffusion (through sales and publication) of their statements, messages, and traditions.

Interfaces mobilize and connect memories of all kinds, initiating grafts, transfers, translations, and transplantations. A great diversity of mechanisms consisting of supports, networks, programs, and interfaces receive, process, and diffuse a great diversity of generalized memories. Videographers' or cinematographers' film stock, phonograph records, archive photographs, documents written and preserved on paper, all constitute the bases of transposable data for informatic media for the same reasons as species' molecular and genetic sequences. Processing programs, which formalize memory-processing methods in order to produce new ones (whether in other forms or not, whether able to be processed in other memory systems or not), organize this flux, and construct these memorizations of memory's functionality, through orthothetic formalizations. Just as language is only instrumentalizable if it contains an instrumentality, just as the explication of its constitutive elements modifies the nature of this instrumentality (and of the language as a whole), all formalization that attempts to elicit memory retroactively reveals its ordinary functionality—and alters this functionality by the simple fact of revealing it: the de-scription is never pure but always already in-scription, an alteration of what it describes. Memory, since it is reflexive, is observed, reflected upon in an interminable, instrumental maieutics. And this reflexive observation required by memory ineluctably affects it. No exemption, no innocence are accessible by retentional finitude.

A television program (even an entire network) and an operating program for informatic files, which seem quite different, must both be understood as processing programs. The same is true for a film synopsis or scenario, a newspaper layout, a best-selling novel, a new compact disc. A processing program is memory's way of being understood and (re-)produced more or less widely, according to logics which at first seem not so easily compared, but which correspond to economies that become all the more important to identify in what they share as well as how they differ, and in how they are variously integrated into vast technological complexes. The very idea of the "program" must be expanded, in fact, to include many differing kinds of activities: academic and scholarly programs,

political programs, programs for work, all must be applied to everything that formalizes rhythms, repetitions, habits and customs, including the most complex.

Industrialized and rationalized, memory's production process seems to be automated as through prosthetic auto-production as the impression of individual memories beyond national, ethnic, and ethical frontiers and barriers. Despite the fact that daily "media crises," manipulations, power-grabbing attempts, clandestine schemes, camouflages, and political calculations are always feeding international opinion, the idea of "subterranean powers" controlling or at least influencing this process and manipulating its information is no longer given much credit except in the shallowest ways: programming effects seem to be less and less controllable, as if the unforeseeable lurked within the vast system of projections and controls, as if programming were no more than madness. As Pierre Nora has suggested and Maurice Blanchot reminds us, "to question is to seek, and to seek is to search radically, to go to the bottom, and, finally, to uproot. This uprooting that holds onto the root is the work of the question. The work of time" (Blanchot 1993, 11). Today, the question is that of the whole, of everything: "We question ourselves about everything in the same way, in order to sustain and advance the passion of the question; but all questions are directed toward one question alone—the central question, or the question of the whole" (11–12). The feeling of finitude is the question, and it is one of panic: "what in the world of mastery, truth, and power is a general question, in the space of profundity is a panic question" (19)

O(Public) opinion-making's madness is the reversal, the double, the redoubl*ing* of mastery's being turned into calculation, of calculation turned into control, and of control turned to programming:

> Public opinion, the opinion without material basis that one reads in the newspapers—but never in any particular one—is already closer to the panic character of the question. "Opinion" settles and decides by way of a speech that does not decide and that does not speak. It is tyrannical because no one imposes it, no one is accountable for it. . . .
>
> Assuredly, opinion is nothing but a semblance, a caricature of essential relation, if only because it is a system organized on the basis of utilizable means, instruments of the press and pressure, the broadcast media and centers of propaganda that transform the passivity that is in essence, impotence and indecision as public opinion's relation to itself, into an active force. Opinion does

> not judge or affirm. Radically unavailable, because foreign to any position, it is all the more at one's disposal. This justifies every criticism. Nevertheless, its panic movement escapes those critics who stress precisely opinion's seductive and tranquilizing alienation, for its movement constantly dissipates this power by which everything is alienated into a nullity or an inalienable indetermination. He who believes that he has rumor at his disposal rapidly loses himself in it. Something impersonal is always in the process of destroying in opinion all opinion. . . . Opinion is thus never opinion enough (this is precisely what characterizes it). (19–20)

The *who* qua *one*—the impersonal—is unavailable to all determination, all programming, because like the *khōra* in the *Timaeus,* it is available to all programming, which redoubles its suspension. Indeterminacy is placed in proximity to the panic question appearing to it, as a *one* who cannot succeed in being a *we*—as madness. The question

> places us in relation with what has no end. Something in the question necessarily exceeds the power of questioning. . . . When being is finally without question, when the whole becomes socially or institutionally realized, at that time and in an unbearable manner, the excess of questioning with respect to the power of questioning will make itself felt for the bearer of the question: the question will be felt as the impossibility of questioning. In the profound question, impossibility questions. (20)

Absolute knowledge (the question of the whole is dialectical) is the realization of a absolutely foreign knowledge "de-realizing" all knowledge, ejecting the "knowing" without a *blow* and causing mute panic, a double bind's psychotic disorder, a decisive moment's interminable extension, each one threatened by nullity as if the *blow* had swept away all intellectual, moral, and professional legitimacy, expropriating all resources, all raw materials of entire regions, entire countries, continents, the entire Southern Hemisphere: the possibility appears *first*—this is a reversal—as the end's imminence. "Risk is *everywhere*," as Janicaud has written. *And irresponsibility.*

Within this programmatic and calculating horizon, at the end of an industrialization that was always described and understood as a rationalization (first of all as a conquest of reason), it is the *logical* element (in the broadest sense) that has been attained, brought about by conquering the *who*'s autonomy, for which it had searched in the liberal or the social, and which seemed only able to produce the autonomy of the *what*, an

"autonomization of the technical system." Yet properly speaking, "exteriorization" of memory, which would require a preceding interiority, does not exist, any more than the "autonomization" of the technical system. The *realization* of memory does exist, in the form of successive de-realizations (suspensions) of the ages of the *who*, generally unperceived and minimally sensitive, and certainly since the nineteenth century, and brutally in the twentieth, has become memory, like air rapidly taking on the consistency of liquid. This realization leads to ever-greater technological complexity in which individuals now seem to be processes only thinkable through complexity, not the reverse. The techno-logical medium thus appears in its development like a vast polyphony, a returning of the spirit to matter, a reversal in which the spirit is not reified and has no more existence than a glove that, removed, reveals the hand, a hand (not) always having been its glove, tool, outfit, habitat, techno-logical practice [*habit, habitat et habitude techno-logiques*].

The new technological being is and will be affiliated with networks, with a great diversity of interconnections and with nothing of the reassuring naturalness that preserved the collectivity as it was established on common grounds. One no longer steps from a clearly established ethnic framework in order to be acknowledged as an individual, since such a framework no longer exists. Progress is no longer measured in ethnic memory: memories of many different sorts have developed. What is to be feared, as a result of this ethnic differentiation, spatiotemporal territorial differentiation (including that of idiom itself, and the philosophical question) is: what now of the idiom, of idiomatic differentiation, within this new horizon, light-time emitting no light? The question of idiom is that of the link between the *who* and the *what* becoming the question of the link between the improbable and the program as a tearing from all given context.

When Hofstadter adopted a subcognitive perspective inspired by connectionist models in order to (correctly) criticize the concept of information, he lost the concept of program. As did Varela. The fact that no behavioral program for an anthill existed does not mean that there were no engrammes (which reveal the role of pheromones); that no information regarding regulation of exterior behavior existed means that if there is a program, there is no obligation to understand the connection to it as determined: nothing compels one to think that a "program" can only produce the programmable, cannot produce the improbable.

But *there is* program. The "natural" memory of the epiphylogenetic being who is not always already artificial does not exist, having been produced by programs that are largely memory's prostheses. There is *only* that. And the *who*, in its indetermination, programs itself. *Who* programs *what*? *What* programs *who*? Does the *who* program the *what* through self-programming? Is the reader, the spectator, or the listener being auto-programmed prosthetically when reading a book, watching a film, or listening to a CD, a DVD, or an iPod? Or does the receiver process the data stored in the particular medium through a program or programs that *is* the human being? Or do these programs consisting of mnemo-technical data permit the "processing" of data in the receiver's "own" memory, which then program their execution? What is the organ (instrument) activated by a CD: the CD player? the listener's sense of hearing? both? something entirely different? Is a book a translation (and production) interface between reader and Literature, as a vast collective memory? Does "software" function in the same way?

We know well enough that these questions must be posed differently. Setting aside the question of intentionality in which we rediscover the aporia of passive synthesis within the temporality of a temporal object-whose structure closely resembles the aporia broached by the question "*Who* programs *what* or *what* programs *who*?"-we see that programs themselves are *temporal objects* in the phenomenological sense, but impose the overcoming of the phenomenological analysis of time. In saying that the media narrate ordinary life by anticipating it, with such force that its story of life seems ineluctably to precede life itself, I meant that public life is significantly produced by these programs; many sorts of interfaces are introduced into each life's intimate consciousness of time, such that the distinction between public and private becomes problematic, while an exorbitant privileging of the one(self), the impersonal, simultaneously seems to result.

Analogic, numeric, and biological orthotheses transform every object into a becoming-temporal-object, mediatic sequences to the living being's sequencings, to the analysis of the reproductive processes, the mastery of the time of transplants and hybrids, not to mention acceleration and thus of management calling itself human evolution. This evolution consists of biology's performativity as it becomes industrial technology. The late twentieth century discovered the effective reality of the synthesis of

all things (their becoming-synthetic and their serialization), so that all analysis is seen as the temporal analysis of a process.

The final chapter of this book will examine the phenomenological analysis of the temporal object and the development of aporias in Husserl's thought regarding the question of the "*We*," within a transcendental history.

Perhaps the literal/literary orthothesis has already newly implemented the temporal object's sequentiality in language, opening it to another working of itself, resulting in logic. Language's enormously sequential and propositional nature is probably only a recent development. A few centuries ago, even in the Occident, a peasant undoubtedly had a notion of a statement that was much more circular than sequential and linear. Certain words reappeared daily; some only on Sundays; others once a year, even once in a lifetime: at birth, marriage, just before death. The event was a turning point, the center of a circle, not to be taken as in flux. Consciousness of flux was stirring but not yet awake [*en veille, n'était pas éveillée*].

§ 4 Temporal Object and Retentional Finitude

> It is necessary that the temporality of immanent lived experience be the absolute commencement of time's appearance, but it appears precisely as absolute commencement thanks to a "retention"; it is inaugurated only within a tradition; it is created only because it has a historic heritage.
>
> —Jacques Derrida

Intentionality, Image Consciousness, and Finitude of "Cognition"

Intentionality is the central concept by which the cognitive sciences attempt to theorize—without being able to see it—the technological process of becoming-temporal-object. Because the questions they ask about the techno-epistemic complex are the sharpest and the most pointed regarding the technical tendency, and thus of the *epistēmē*'s effective reality, because these questions are the very point of all of today's questions, it is vital to try them out, put them to the test.

The becoming-temporal-object of everything "that happens," through the operation of media and, beyond them, through the omnipotence of the new programmatology producing space-light-time's weave of rhythms, is also the primordial phenomenon arising with informatic *calculation*. Différant analogic and numeric identities systematically temporalize everything that is retained (as the selected) in a new configuration of the elements validating all event-ization. Synthetic cognition is constituted as an algorithmic sequence of unfolding instructions or operations whose control loops determine recurrences qua feedback; and such a successivity can also be seen in the architectures of substantially parallel processes (connectors) and in frequently recurring nonlinear structures: clearly, the structure of all objects emerging from a network of neuronal automatons is (intra)temporal to the degree that all of a network's changes of state are fixed, as holistic alteration, on the "now" as determined by a clock.

Understanding cognition as a model of information and of programming qua calculation carrying out algorithmic instructions, that is, as an "orthodox" cognitive science using this model to study cognition in general, one must confront a major difficulty regarding intentionality: the "large now"'s longitudinal structure, as phenomenology discovers it in all temporal objects, and the hylomorphic aporias emerging from it. Unable to resolve the difficulty (insofar as they can even see it), cognitive scientists can neither conceptualize successivity nor apprehend the temporal nature of numeric objects.

This phenomenological difficulty holds that as soon as intentionality becomes longitudinal, retention *must* simultaneously be retentional finitude and passive synthesis. And Husserl, because he cannot accept passive synthesis without contradicting his project in *On the Phenomenology of the Consciousness of Internal Time*, is constrained by the same idealizations as Turing's with regard to memory's finitude; in the diagram of time, this memory is infinite.

That the cognitive sciences cannot encompass the thought of intentionality means that they also cannot criticize the exclusion of retentional finitude in Husserl's phenomenology and his concept of intentionality. Cognitive science needs to criticize its own use of the concept of the abstract machine. This is all the stranger in that what prevents the cognitivist concept of intentionality from being Husserlian is the matter of image-consciousness—of the "third memory": Husserlian intentionality is completely incompatible with machinic intentionality, since for Husserl, the former could only be a flux or flow of "images," ciphers, lines, or *grammēs,* without consciousness, mere recordings—unless it is thought of as a living machine, but this is not the case in the cognitive sciences we are addressing here—, that is, an essentially non-intentional passive synthesis, deprived of all life in the present and all presence of life, of the living present that is the "large now" in which the temporal object appears. In other words, selection could not be a retention in the Husserlian sense. But that could means two things:

—Either the informatic model cannot account for human cognition, since it is finite, and in reducing "human cognition" to just another intratemporal operation dissimulating "ontological difference," the informatic model qua selection is a modality of the production of image-consciousness, among others.

—Or retention is essentially affected by the accidental nature of image-consciousness, and thus, today, by the selection operant in passive industrial synthesis; cognitive technologies make it clear (whether they wish to or not) that temporality is an originary coupling of the living being and the non-living in which the living being, as Present Living Being, is never without death—and that will become, in the *Ideas*, the transcendental ego-logic realm suffering from it. If tertiary memory contaminates retention, its reduction is also that of the originary identity that can only appear as the différance of originary default. And this is also true when what is modified qua image-consciousness is the genetic sequence itself, originating what seemed to be immutable in the already-there: the structure of the body proper. The cognitive sciences' first issue thus becomes artificial life, and the idea of such a life mandates phenomenological analysis in that it insists on the possibility of revealing an eidetic core and the rooting of consciousness' temporality in a living present shielded from all retentional finitude by the opposition of primary memory to secondary and tertiary memory.

Like Husserl, the cognitive sciences simultaneously ignore retentional finitude and language's idiomatic nature in their adherence to a Chomskian linguistics. But on the other hand, because they understand Husserlian intentionality only through the theory of propositional attitudes completely homogeneous with an aspect—but only an aspect—of intentionality as it is addressed in *Logical Investigations*,[1] they do not accept temporality's aporia, in which the transcendent becomes irreducible, while phenomenology goes directly there and thus always finds itself haunted, and renews itself to the end.

The Origin in Husserl's *On the Phenomenology of the Consciousness of Internal Time* and in *Logical Investigations*

When Husserl was exploring the becoming-temporal-object of all events with the industrial synthesis of retentional finitude, he was also thinking through the *epokhē* and working through the difficulties of accounting for an object's temporal structure as a melody from the perspective of intentionality, from which it is impossible to derive the phenomenological constitution of consciousness's temporality qua flux. What I

try to do here is to demonstrate that this phenomenology begins with a failure that leads to the draft of an effectively finite conception of retention, introducing passivity into a temporal synthesis, which also becomes transcendental history. Such a constitution is thus always already the already as such: it can only be a (re)constitution.

We must remember first of all that as I portrayed it in *The Fault of Epimetheus*, the transcendental question's origin lies in the aporia I pointed to in Plato's *Meno*: It is impossible to search out what one does not already know, since either even if one came upon such a thing by chance, one would not be able to recognize it, or else in re-cognizing it, one would see it as already a given, and thus be misled or mislead oneself in declaring that one had found it.

Socrates responds: In fact, one must already have known it. All knowledge is but re-knowing, an-amnesia. Knowledge is memory. The soul can re-remember *eidē* because it is immortal.

The *Meno* is the first instance of the thought of a-priority. In order to assemble the diversity of cases with which the young Athenian answers Socrates' question "What is virtue?" into an identity organizing these *examples* into a series in order to unify them within the concept of empirical data, it is necessary—already—to be able to see what virtue is: to see its *eidos*: an eidetic vision of virtue *as such* conditions all experience of a particular virtue. But virtue as such does not exist; only a virtue exists. And yet without the ir-reality of virtue as such, no real virtues would be able to appear. Across the entire field of extant virtues, virtue as such *con*sists and *in*sists—without *ex*isting. It comes (back) [*elle y re-vient*]: it is a spirit.

After the *Phaedrus*, Plato constructs his own philosophy, which tradition would come to call the realism of Ideas. Body and soul, intelligible and sensible, an-amnesic and hypomnesic are all jointly opposed to each other as instances of a more universal opposition between being and becoming.

The dialogue at the origin of these divisions amounts to nothing less than the very possibility of judgment. And aporia, which haunts all of philosophy, is at the very heart of the Husserlian concept of intentionality. Husserl's *Logical Investigations* asserts that all consciousness is consciousness-of-something, constituted out of its object of consciousness. The phenomenological, which for Husserl cannot be constituted in advance, must neutralize all hypotheses of existence and its objects: the phenomenon is constituted in lived experience whose intentional goal is

always that of an *eidos*. This Greek word generally translates as "essence"; however, this translation collapses the aporia harbored within this word since Socrates, an aporia of which Husserl's phenomenology of 1901 is no more than the reactivation, and which is reconstituted there as the question of time.

The object could not be already given in advance, but through the object an *eidos*—in advance—is being sought. The *eidos* is not in the world: it is, rather, an ideal object. But it is also not in consciousness: if it could be discovered there already, it could not be the objective of a process of completion that could always fail—and that perhaps always does. This process takes place as the flux of consciousness, temporality itself, as laid out programmatically in Paragraph 6 of the fifth *Investigation.*

The issue, then, is: where are the *eidē*, given that nothing else is constructed in constitutive consciousness and the world?[2]

The problematic of *On the Phenomenology of the Consciousness of Internal Time* has its origin in the fifth *Logical Investigation*, entitled "On Intentional Experiences and their 'Contents.'"

These *Investigations* confront the very heart of phenomenology: the temporality of "lived experience" focused on an ideality that is itself nontemporal. Phenomenology is an eidetic transcendental to the extent that it regards objects through their ideality, that is, their unity, which does not exist in the world (any more than the geometric point does), but whose pursuit is the establishing condition of the existent real as constructed for and through consciousness. Diverging from a transcendental phenomenology such as Kant's, which, Husserl claims, only formally addresses the question of the conditions of possibility of all experience, Husserlian phenomenology holds that it is in lived experience that the phenomenologist can observe phenomena, thus neutralizing their relation to the real (by prohibiting all reference to the construct that must be accounted for), in order to access evidence of pure essences (apriorics). To connect with lived experience only in its immanence would amount to being given the sole means of discovering ideal regularities in advance of any reference to existence and that order its construction. This neutralization allows for the uncovering of the relation to the ir-real, which is the intended ideality. This relation is always concealed within consciousness as a natural attitude, while at the same time always focused on ideality, just as for Aristotle, water is precisely what could not be apparent to fish, which, however, only see through it.

To think the *phenomenon* is to distinguish appearance from appearing, experience of the object from the object itself: "We live phenomena as belonging to the frame of consciousness, while things appear to us as belonging to the phenomenal world. Phenomena themselves do not appear to us; they are lived" (Husserl 2001b [1972], 86): it is important not to confuse the subject/object relationship, which is itself phenomenal, with that between the content of a consciousness lived in the present with "consciousness in the sense of the unity of the contents of consciousness." "In the first case, it is a matter of a connection between two phenomenal things; in the second, a connection between a particular lived experience and the constituting of lived experiences" (86) consisting of the apprehended consciousness, from a phenomenological perspective: the phenomenologist replaces object and subject with phenomenon and the flux of consciousness in which it is constituted—a flux that is also consciousness's unity, the power of unifying lived experiences.

Paragraph 4 of *Logical Investigations* asserts that the phenomenologist need not substantiate any instance of *ego* in order to account for consciousness's unity, a unity fashioned through the nature of flux. Ego is a mode of reifying flux, eradicating its inherently flowing nature and redefining it as a container independent of its contents: a box into which experiences can be placed, but which is separate from them. Starting out with lived experience and holding tenaciously to it, phenomenology cannot see consciousness as a frame preceding its contents, but as those contents themselves. The reification of flux thus necessarily loses the primacy of consciousness's living presence, lived experience itself.

Phenomenological neutralization reduces the ego to the unity of consciousness qua constitution of experiences that each of us discovers within ourselves as being for the most part obvious "and which, for the remaining part, we have good reasons for accepting" (86). All of the issues raised in *Logical Investigations* concentrate on this remainder: time itself; that is, the sequencing of phenomena: lived experience needs no principle of unified consciousness other than this sequencing, within which experience takes place; the "reduced phenomenological ego is thus not . . . something specific floating above multiple experiences, but simply identical to the unity which is proper to their connections" (86). The laws of this sequencing are ideal regularities through which the conditions of completion of an experience are satisfied.

The challenge is to understand what makes up or gives unity in and through which experiences attach themselves to one another, the passing from an experience manifested in a living present to another comprising a new present in which the previous experience has become past:

> In the nature of its contents, and the laws they obey, certain forms of connection are grounded. They run in diverse fashions from content to content, from complex of contents to complex of contents, till in the end a unified sum total of content is constituted, which does not differ from the phenomenologically reduced ego itself. These contents have, as contents generally have, their own law-bound ways of coming together, of losing themselves in more comprehensive unities and, in so far as they thus become and are one, the phenomenological ego or unity of consciousness is already constituted, without need of an additional, peculiar ego principle which supports all contents and unites them all at once. (86)

There are two domains of regularities: eidetic and flux qua sequence(s) of lived experience. Two structures of amalgamation: the *omni-temporal*-eidetic, consisting of specific *eidē* (*species*) formed into genres, and *temporal* flux, connected elements or sequences of elements. Close readings of these amalgamations, which form the very fabric of the phenomenon (its unitary fulfillment), form the world qua ideal possibility of world. This is always a question of the possibility of world as world, as existing reality, spatiotemporally determined.

In order to ensure the coherence of lived experiences and their flux, through all the ideal vectors allowing them their empirical experiences, it is necessary to compose the world's appearance and simultaneously the unity of phenomenological consciousness. Unity of consciousness is the world's unity—in its possibility.

Still, one might ask if the ego is not itself an ideal aim, a vanishing point at once always changing and always identical in its aims qua the melody to which Husserl refers in *Logical Investigations*, which organizes all ends of all experiences, assuring their coherence according to the laws of experiential convergence.

It is necessary to replace the subject/object relationship with that of flux / (real content (ideal content). Here, the object is lived experience of the object in which the intended ideal content is effectively distinguished from the flux into which the real content is inserted. Flux is a unity closed on itself that nevertheless finds therein "eidetic horizons" projecting unity

outside itself. Since the *eidē* are neither in the consciousness that projects them nor in the world constituted by this projection, WHERE ARE THE EIDĒ? This is the question of a void and of a default at the very core of a flux that is itself re-doubled and pro-jected as an ideal unity-to-come. This eidetic outside-oneself, which is not a transcendence, is inadequation in the core of flux itself. If unitary flux were itself an intention, an archi-process of fulfillment directing the ego's unity through the linking together of all its elements, it would still in some way be inadequate to itself, and would thus describe the completed relationship [flux / (real content (ideal content)] (ideal unity of flux. It is as if the nonfulfillment of this unitary ideality of flux gives it its properly fluid character, its movement, that is, its un-achievement as its dynamism's source—but in this case, the "flux of consciousness" becomes the Dasein of Heidegger's existential analytic, qua being-for-death.

Husserl's Paragraph 5 contains the essential details of the question of inadequation, of fulfillment or completion. All adequate perception is internal perception, but not all internal perception is adequate perception. Between internal inadequate perception and internal adequate perception, there is the tendency toward completion—which can always fail. Internal perception is that of my own proper experiences. Adequate internal perception is that of some evidence within my experience *of* my experience qua experience *of* evidence: all experience is evident, but not all experience is experience of the obvious. The psychologist, not seeing this, confuses internal perception and adequation. But this distinction allows for the pure and simple elimination, within the phenomenological perspective, of external perception, which no longer has anywhere to be: what the psychologist sees in it is the inadequation of subject and object, the fact that something of the object, in all external perception, always escapes the subject. What must be studied is not the inadequation of the subject and object but that of the always-internal perception that is lived experience, a component of the external object and thus of external perception, to the intended ideality at the heart of experience. The subject's inadequation, qua sphere of internal perceptions, to the object qua source of external perceptions thus becomes the inadequation of an experience's real content that is essentially internal perception, to the experience's ideal content—which is neither internal nor external. Where is it?

What *you* read of what *I* write is not what I *write*; it is what you *read* of what I write: the reality of your "external perceptions," of what you

perceive of my writing, these are not my writings, these are the productions of your flux of consciousness, the purely internal sense of your flux of consciousness that you construct from my writings. If our internal perceptions could coincide, thus eliminating exteriority (which makes up the ideal scientific community that Husserl would later call a *transcendental We*), it is because my written expressions aim at an ideal sense that you also intend/read and that we attempt to complete together in "reading/visualizing/intending" [*livisibilisant*][3] it. The real question is: under what conditions can or could an intentionality be fulfilled in its entirety?

The claim here is that these—temporal—conditions are technological.

Husserl demonstrates that the issue is one of an opposition, not between internal and external, but between adequate and inadequate, inscribing an inadequation that is nothing other than temporality at the very center of consciousness.

Paragraph 6 of the *Logical Investigations* approaches the question of the temporality of the flow of consciousness as such, and thus of the link between time and omni-temporal idealities maintaining their identities through time. It also addresses the question of fulfillment, as connection of inadequate to adequate within immanent temporality—not within the temporality that asserts and tests and suffers through the fact that the existing world becomes, that the sun sets, that the days pass one after another.

The clarity of internal perception, or rather adequate internal perception, is first of all that of the I, as in I am. Although this I is "inexpressible," it appears in all experience that is always my experience. The difference between evidence of experience and the experience of evidence is given within the horizon of preconditioned evidence of the I as the horizon of unity framed by the flux of experience, which is maintained, as the now, through them, and always seems to be co-directed [*covisé*] with them. It accompanies all forms of judgment characterized by *I perceive*, and all affirmations of the type *I desire*, and so on. An "*I think* accompanies all of my representations"—here it is never the case that Husserl opposes the *I think* as subject to other objects, nor to hypostasize the ego, but on the contrary to reduce it to the unity of a flux, in a gesture closer to Nietzsche than to the *Critique of Pure Reason*.

Consciousness can attempt to aim at the *I*-for-itself qua vanishing point in all individual experience, by which it in turn becomes an intentional

element; that is, a tension between a real and an ideal element. And is this I not an ideality of the ego? And in all experience, qua co-directed? What is its "real content"? What is the nature of this tension between real and ideal and of its possibility of fulfillment? Heidegger would say: death is the achievement of this completion, the end of intentional consciousness in the living qua difference-completion, completion in différance, and as different: as other. But this gesture will have required abandonment of the privileging of experience and the introduction of a historial non-lived-experience.

Like all "appearing," the nexus that is the *I* returns to an eidetic correlate (it has an *eidos* that is the condition of its synthesis). The ego is changing, composed of its history; it is only the flux of its successive experiences, and at the same time, as returning to this correlate, it must be ideal. What would such an ideality consist of? This ego is an ideal intended identity that confers unity on all intentions of identity, and in this sense it "transcends" them, but in a transcendence neither real nor formal but itself constituted within the unity of flux, a "transcendence in immanence."

Lived experience is the granular unity of flux, which is in turn the generic unity of experience in the sense that as fulfillment, experience is temporal, a unity that unfolds and that, in unfolding, connects to another experience and gives way to an experience that will be connected to it. The time of unfolding is that of fulfillment qua occurrence of an archi-fulfillment of flux as insertion of experience between them, living presents fashioned into an archi-unitary ring.

The *I am* is evidence adequately perceived but "inexpressible," and that forms "the initial and absolutely certain domain of what gives us . . . the empirical phenomenal ego's reduction to its perceptible content in a purely phenomenological way" (87). This is why "in the judgment *I am*, what is adequately perceived as the *I* comprises precisely the unique core rendering both evidence and its base possible" (88). But is this evidence not "inexpressible" because it cannot be adequately perceived? In fact, is this core not the very origin of inadequation qua paradoxically inadequate evidence—qua evidence of an inadequation that is both paradoxical and characterizes intentionality itself—*intensio*—qua irreducible *distensio*—that is, qua temporality?

In the domain of evidences, of adequate perceptions, "another must be added," the domain of

—retentions: of what, in the lived present, nonetheless includes a sort of primary past, an immediate past, which gives rise to the possibility of the dynamic character of fulfillment (as a process involving flux);

—re-memorization; that is, of anterior experiences that are accessible through memory and associated with current experiences; the possibility of a fulfillment unfinished in one experience but continued in another obviously suggests the possibility of secondary retentions that form both the frame and the unity of experiential flux as "phenomenological content of the ego."

There is an immediate retentional past and a completed, finished past, interdependent with the living present of experience, of anterior experiences to which the living present is linked. But on the other hand, there are also relations of interdependence between current and past experiences, unities that "constantly fuse one instant to another," interdependences inscribed in the dynamic of flux that is both ever-changing and subject to its own aprioric permanence, time qua "continuously identical form." Time is the unity of the moving flux of experiences and the ego's phenomenological reduction. As a result, the concept of lived experience is "widened." The ego is maintained as identity in all lived experience (lived by a particular ego: always mine), but in such a way that it is confused with the temporality of all experience: as it adheres to all retentions, re-memorizations, and co-existent relationships that compel reasoning in terms of sequences of experiences linked one to another in a temporal flux that is perpetually identical even though constantly changing. Phenomenologically reduced, the ego becomes the time of lived experience and nothing else. The very concept of lived experience is broadened, no longer being apprehensible as such, but inserted into temporal flux, which determines the unity of all phenomena.

Phenomenological Analysis of the *Zeitobjekt* and Discovery of the Intimacy of *Passage* within the Immanence of the *Zeitbewußtsein*

In 1905, the question of the temporality of the phenomenon became one of temporal phenomena qua phenomenology of the intimate consciousness of time.

All consciousness is consciousness of something, and this intentional structure precludes discussion of consciousness that does not test out the

appearance of some object. But then the question is how to access flux through an object. And indeed through a temporal object: as part of a temporal object (*Zeitobjekt*), intentionality coincides with the temporal fluidity of consciousness itself, as flux.

Objective time being suspended, "that the consciousness of a tonal process, of a melody I am now hearing, exhibits a succession is something for which I have an evidence that renders meaningless every doubt and denial" (Husserl 2001b [1972], 5).Within the perception of a temporal object, perception of duration and duration of perception are to some extent "glued" to each other:

> It is certainly evident that the perception of a temporal object itself has temporality, that the perception of duration itself presupposes the duration of perception, that the perception of any temporal form itself has its temporal form. If we disregard all transcendences, there remains to perception in all of its phenomenological constituents the phenomenological temporality that belongs to its irreducible essence. . . . A phenomenological analysis of time cannot clarify the constitution of time without considering the constitution of temporal objects. By temporal objects in the specific sense we understand objects that are not only unities in time but that also contain temporal extension in themselves. (24)

Analysis of time consciousness is a question of passing as such. In effect, Husserl discovered that the now is what passes, and that it is always already and immediately passing and past: still present, it is already past (i.e., retention). And at the same time already future (i.e., protention). This is the evidence, the phenomenological *datum* produced by the analysis of time in the temporal object's phenomenality.

This just-having-been of a present temporal object's now, in flux and perceived as such, this retention that Husserl calls primary memory (which he opposes to secondary memory), is the recalling of a temporal object that has ceased to be, but that I can still remember. And the radical difference between the secondarity of "recollection" and the primordial data of retention means that it has, a fortiori for Husserl, nothing to do with the already-there, which arises from tertiary or objective memory, which Husserl calls consciousness of image. However, Derrida's and Ricœur's entire critique, working to understand the precedence of passive synthesis, upsets the fixing of this opposition. And if this critique is correct, primary memory can no longer be any more opposed to tertiary

memory than to secondary memory: the already-there qua *what*, the third world-historial, is constitutive of a temporality always already emerging from its strict intimacy.

Paragraph I of *Logical Investigations* reveals the necessity of objective time's reduction, enabling it to take account of the intimacy of temporal consciousness beyond all psychology and all history, locating itself within the sphere of an immanent perception that could be absolutely adequate to its object. It is necessary to be released from the world's time and from thingly duration, "apparent time, apparent duration as such, . . . immanent time of the flux of consciousness." The intimacy of the time of consciousness thus revealed in the phenomenology of the temporal object is an "absence of interruption":

> "*Intimate*" (*inneres*). In this one adjective, the discovery and the aporia of all phenomenology of time-consciousness are conjugated. . . . (the German language perfectly expresses, by means of the compound substantive *Zeitbewußtsein*, the absence of an interruption between consciousness and time). (Ricœur 1983-85, 3: 38)

If we "look at a piece of chalk," then "close our eyes and re-open them, we then have two perceptions," and we must state that "there is duration in the object; in the phenomenon, change." On the contrary, in a temporal object such as a song's melody, the change in consciousness can only be the change in its object. As a non-temporal object, we sense "subjectively, a temporal succession where, objectively, we must confirm a coexistence" (Husserl 1991 [1966], 8). Acting as temporal object, the consciousness's passing is the object's. Psychological analysis of time does not see that "of what [external] excitation endures, it does not follow that sensation is sensed as before a certain duration, but only that sensation also endures it. Duration of sensation and sensation of duration are different. And the same applies to succession. Succession of sensation and sensation of succession are not the same thing" (Ricœur 1983-85, 3: 38). The originary contents of a temporal object's consciousness qua succession and succession's objectivity coincide, and out of this intimacy Husserl separates transcendental temporality from empirical time. Franz Brentano, whose theories will introduce the themes of modification and retention,[4] not having understood that this intimacy requires a transcendental analysis, confuses the empirical and the originary.

Evidence is modification. Question is its method, its *how*. Husserl erases the complexity of this how, speaking of melody, but seeing only tone, melody being too complex, qua the Augustinian poem.[5] And does not this commonality of the poem's and of melody's complexity, however, reveal an essential complexity of the temporal object, and does this not relate to the fact that their common nature is always already programmatic?

Originary Association, Maïeutics, and *Epimētheia*

Husserl works through the phenomenon of retention as primary memory by transforming the concept of originary association by which Brentano attempts to explain his present and his past's modification through imagination, originarily associated with the presentation of tone qua flowing tone: for Husserl, the moment of retention, generally associated with the now, cannot be produced by imagination, since it appears to the now, constitutes it as the now of a temporal object. The result is the appearance of "longitudinal intentionality." What emerges from transcendental study of the temporal object is intentionality of a quite unique sort, whose nature (originarily intuitional) is identified by its longitudinality, as opposed to "transcendent intentionality which, in perception, puts the accent on the object's unity" (43). When the now's "just-having-been" is retained by a now, a sense of duration arises, and not merely duration of sensation. The imagination cannot operate this association because the evidence of the sensation of this object's temporality, which survives its modifications, can be given only as perception. To attribute the operation to imagination would be to efface all difference between imagination and perception: "as a consequence of his theory, Brentano comes to deny the existence of the perception of succession and of change. We believe that we hear a melody and therefore that we still hear what is just past, but this is only an illusion proceeding from the vivacity of the original association" (Husserl 1991 [1966], 14). For Husserl, on the contrary, "the unity of consciousness, which embraces present and past, is a phenomenological *Datum*" (14); there must be a difference between perception and imagination, or else reasoning becomes absurd. Yet that will amount to an insulating, a purifying of perception, qua presence, even if it is that of a broadened now, of memory's secondarity (always to some extent imagined), and an a fortiori discarding of the very possibility of dependence on an already-there. But

by this very fact, Husserl is constrained to exclude dynamic understanding from temporal flux. In order to maintain the difference between imagination and perception, secondary and primary, without constructing an opposition between presence and absence, it would be necessary to abandon perception's primacy, which would inevitably throw all absolute separation between real and fiction (that is, between constative and performative) into crisis—and it is precisely such a crisis that has begun in generalized performativity, resulting from the becoming-temporal-objects of all things, and not just all things but all events, when retentional finitude is industrially rationalized. In other words, if it is "most extraordinary that in his theory of the initiation of time Brentano does not take into consideration at all the difference between the perception of time and the fantasy of time, a difference that forces itself upon us here and that he cannot possibly have overlooked" (17), is it not still more extraordinary that this lack of differentiation can be imposed industrially?

To solve the problem inherent in temporal objects, whose originary association through imagination is a false solution, Husserl bestows a double meaning on intentionality, "according to whether it indicates the relationship of consciousness to 'what appears in its mode,' or the relationship to what appears at all, the perceived transcendent" (Ricœur 1983-85, 3: 46)—but we shall see how and why Husserl is in fact constrained in this duality by not taking one of its aspects, operating as an abusive reduction, into consideration: "in fact, the whole domain of original association is a present and real experience. To this domain belongs the entire series of original temporal moments produced by original association, together with the rest of the moments belonging to the temporal object" (Husserl 1991 [1966], 19). An essential discontinuity exists between perception and imagination, disturbing the continuity of the "large now." In a melody, each tone is not only a certain tone but a certain *note*, since it retains the preceding tone, thereby conferring "note nature" on the two tones. The note retains all preceding notes; thus the melody is presented in its unity. This is true because the object being temporal, the now retains within itself a particular just-having-been, as what Husserl calls "originary impression," continued and continuing modification at once present and past. In its passing, the originary impression modifies, giving the impression of succession, as the object's temporality, the retentions it retains and that are flowing in it and through it.

But we must revisit the entire question of the temporal object from a dynamic point of view, in which emergent tone, for example, would already be a rereading of all (just-having-been) tones in primary memory, and thus a modification of all past tones—but in such a way that this modification in return retro-acts on the passage of tones actually heard as originary impressions. The originary impression would only have been composed as "originary," then, as a loop, as the *après-coup* of an already-composed, impressional, primarily-retained already-there, itself in perpetual modification.

This is indeed what Husserl *seems* to say, but not what he says. If it is true that accumulated retentions, following an originary impression as the now, are ceaselessly modified through the passing of the now and its impression, as the phenomenon of temporal flux itself, this impressional passing must precede any such modification, indeed must condition it and not be conditioned by it, in which case the impression would no longer be either purely originary or purely perceptual. Introducing the *après-coup* into originary impression means forcibly ruining the opposition between primary memory (retention, production) and secondary memory (recollection, re-production). If the discontinuity between imagination and perception requires an absolute opposition between primary and secondary, then for the same reason, it forbids any return to the condition of impression's retentional modification, which constructs the now's passing; the role played by repetition, as secondary memory, must also be excluded in the formation of the primary memory. Yet if that seems possible when it is a question of a tone (recalling that a tone is not a note), it would become inconceivable when it is a question of a melody or a poem.

A poem's verse can only appear as verse by construing itself as a temporal object; no poetic sound effect is possible except through its tendency to individualize itself within the succession of the poem's verses and nonetheless, simultaneously, a verse only accedes to its unitary constitution as temporal object in linking to the temporal unity of the preceding verse, and through it, to all preceding verses, repeating their rhymes and meters within a single temporal object, the poem. A verse's poemic nature, what gives it its temporal unity, pre-cedes all previous verses, maintaining in their retentional unity their "poemic nature" as an even more originary source. And is the poetics of a poem, properly speaking, not just such a tension? But then, is not what identifies a verse in relation to a poem also what matters, in its relation to the poetic work in a collection of poems?

If this is indeed the case, the opposition between primary and secondary [memory] would effectively be destroyed, which would still not prevent [us from] making the distinction: I must be able to interrupt my reading of such a collection of poems without undermining its unity for myself or forgetting the fact that my prior readings of the poems, which collectively make passage possible, give me *access* to it (this is precisely what Derrida holds in *Edmund Husserl's Origin of Geometry: An Introduction* regarding geometric intuition). And above all, if it is true that the "poemic" nature of the poem is opened out through its memorization; if it is true that versification, already consisting of repetitions, is constructed in repeated readings as temporal objects that are new each time for consciousness—and yet inseparable from the poem's poemicity; if all this is true, then the secondary opens the possibility of the primary, such that the possibility of a tertiary memory becomes just as essential; poetic literature is an orthothetic modality of this essential possibility (just as there is no geometry without consignation)—exactitude of repetition in which the written, literarily (and literally) preserved, is essential to the possibility of arriving at poetic literality. A literality that is essentially technical.

Set into the annular dynamic of a flux going beyond lived experience itself, reading a new poem transforms the accessibility of all already-familiar poems and frees new possibilities of access—but in return, the modification of the already-there, in a strange maieutics, itself constitutes the passage of a new poem. This maieutics is possible only as an *après-coup* of originary *epimētheia*, which is itself composed of retentional finitude as *promētheia*.

Obviously, a poem read is not temporal in the same way as a poem heard. But if it is possible to demonstrate that all of that contributes to the constitution of every temporal object, the already-there of what is presented would thus be modified in its retentional entirety by what is presented, even though this modification would in turn alter the present's presentation, the new now as pre-ceded by the access it opens to its own already-there. This recurrence, this dynamic, is inscribed in a flux to which it is sequentially attached, and through which it attaches to other temporal objects that are already-there, in the secondary mode of no-longer-being-there, and which permit it to attach onto itself, a reference to a melody and not, as Husserl suggests, to a tone. A melody is composed of notes, and a tone can become a note only in tying itself to other tone-notes with relations similar to those by which a verse constitutes a poem.

And yet Husserl is limited to consciousness of tone—an entirely ambiguous slippage he uses to legitimize the desire to remain on the immediate aural (hyletic) level. However, a tone is still composed, not only because it remains as consciousness, but also as specter, and finally as being always already the tone "of" something. Therefore the pure *hylē/morphē* distinction is never possible.

And the question then, is, one of knowing how a longitudinal intentionality is possible, one that Husserl tends to apprehend in its purely hyletic intimacy, and that brings the status of consciousness (which primordially defines intentionality) back into question. Yet if tone is always tone-*of*, Husserl, effacing the complexity giving rise to this distinction of phenomena, is constrained to conceal the fact that the price of the just-having-been is to be the past-of-a-present that can take form only by separating itself from the partitions between retention, secondary memory, and image-consciousness (the *what* as a recording of the past qua tertiary memory).

The purely hyletic analysis of tone parallels the phenomenon of hearing and conceals in advance the question of a "hearing-capacity" whose "voiceless voice" [*voix aphone*] will be the deepest aspect of the existential analysis; thus carried, it is hard to see how the analysis could account for a difference between listening and hearing. When I hear a melody, my intention is no longer focused on the tone in the same way that, when I hear a "noise," it is not a *pure* noise but always already a noise-of-something. To listen is

> phenomenally still more originary than what psychology "initially" determines to be "to hear," to experience the perception of sounds. To listen also involves the mode of being of hearing that is understood as such. "Initially," we understand nothing of noises and complexes of sound, but we always recognize the screeching automobile or the motorbike. What we hear is the column marching, the north wind, the woodpecker pecking, the fire crackling. (Heidegger 1996 (1927(, §34)

Husserl cannot rest on any explication that lacks an extension to the now in which retention belongs to sound's temporal presentation. We would then be inclined to think that he intends to show that it is rather a question not only of sound but of the sound-of-the-melody, and thus already of the melody; melody can be composed as a unity only in this extension that always already transcends the elementary unity of a tone—since it is

always a supplementarity in which a tone is presented. This is, however, just what Husserl excludes:

> But we cannot be content with this explanation, for everything that we have said carries over to the individual tone. Each tone has a temporal extension itself. When it begins to sound, I hear it as now; but while it continues to sound it has an ever new now, and the now that immediately precedes it changes into a past. Therefore at any given time I hear only the actually present phase of the tone, and the objectivity of the whole enduring tone is constituted in an act-continuum that is in part memory, in smallest punctual part perception, and in further part expectation. This seems to lead back to Brentano's theory. Here, then, a deeper analysis must begin. (Husserl 1991 [1966], 25)

Pretending to analyze the phenomenon of hearing within melody, but remaining affixed to the unity of a tone, Husserl can see only one aspect of the modification retention requires—the retentional accumulation that is also retentional occlusion, without being able to see the effects that turn back upon the now qua originary impression, which the rereading of retentions and retentions of retentions always introduces, along with the appearance of new tone when one listens to a melody.

The difficulty is: strict fidelity to intentionality, as a phenomenological principle, would render any transcendence of the temporal object irreducible.

Fluid Mechanics and Flux Dynamics: Individuation of Tone and the Metaphor of Space

"A deeper analysis must begin," but this new "depth" will no longer affect the idea of modification, and will remain on its surface. Husserl derives everything to follow from this commentary on the individual tone, since the individual tone is nothing within a melody; it is always already another tone: the preceding one, the following one; and because it is not specific, because it is, nonspecifically, it is always only the point of passage of an individuation process before which the individual is not given: there is, as Bergson says, a primordial and, as Simondon has reiterated, a pre-individual, multiplicity in which the constructed "individual tone" is nothing other than an effect whose unity consists merely of the pursuit of its differentiation in the interest of a global individuation process, not

of tone but of melody—as any language's tones are its phonemes only through the system they form—and that they can no longer precede; language's "system" cannot be constructed without them, though they constitute the idiocy of its idiomatic richness. To apprehend isolated tones in a melody or phonemes in a language, as an artifact, is just as useless as trying to understand the crackling sound of a fire through the study of wood, whether through psychology or a phenomenology of perception, such as *On the Phenomenology of the Consciousness of Internal Time* (Husserl 1991 [1966]), derived from or based on the great hylomorphic division that directs the analyses of "tone as pure hyletic data," and that presents its deepest reasoning in *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy* (Husserl 1980 (1950() in re-asserting the *ego* as originary, having nonetheless had to reject it in criticizing Kant's transcendental formalism at the time of the *Logical Investigations*.

In abandoning melody, which only re-appears in his analysis of recollection's secondarity, Husserl squanders a major part of the problematic richness of secondary memory, which constitutes the temporal object's phenomenality, and aligns himself with longitudinal intentionality and all of this reduction's abuses, thus losing the object's intentionality.

> . . . We now exclude all transcendent apprehension and positing and take the tone purely as a hyletic datum. . . . "Throughout" this whole flow of consciousness, one and the same tone is intended as enduring, as now enduring. "Beforehand" (in the event that it was not expected), it is not intended. "Afterwards," it is "still" intended "for a time" in "retention" as having been; it can be held fast and stand or remain fixed in our regard. The whole extent of the tone's duration or "the" tone in its extension then stands before me as something dead, so to speak—something no longer being vitally generated, a formation no longer animated by the generative point of the now but continuously modified and sinking back into "emptiness." (Husserl 1991 [1966], 25)

True, consciousness of tone begins and ends. But is it not artificial to say "I am conscious of a single tone"; is this not to introduce unity where it is not yet established, when on the contrary it is released, *après-coup*, from the flux of a multiplicity? Is there not, rather, a temporal, pre-individual ground(s) on which the unitary figure of tone has always already emerged? This is the same question as that of intersubjectivity in which, being presented *in advance* as individual, one effaces and loses the individuation that emerges trans-individually from a pre-individual base.[6] In such cases

as these, hylomorphism always oscillates between two possibilities that in the end collapse together; converging in advance are: *now the hylē*—as in the *Consciousness of Internal Time*, now the *morphē*—as in Pure Phenomenology and Phenomenological Philosophy.

Tone, in its duration, moves away and runs on like water in a river: flowing tone is receding tone. This mechanical fluidity finds its source in a constant spatial reference that clouds all analysis from the outset. In the undefined of this spatial horizon, which is certainly not to be compared with the indeterminacy of a temporal horizon, what is lost is the dynamic of temporal flux. It is extremely difficult to apprehend temporal experience, and the spatial metaphor seems to aid comprehension:

> The points of the temporal duration recede for my consciousness in a manner analogous to that in which the points of an object stationary in space recede for my consciousness when I remove "myself" from the object. The object keeps its place, just as the tone keeps its time. Each time-point is fixed, but it flies into the distance for consciousness. The distance from the generative now becomes greater and greater. The tone itself is the same, but the tone "in the manner in which" it appears (*der Ton "in der Weise wie"*) is continually different. (26–27)

But *why* does one *need* an *aid* here? Why is it necessary to call space to time's aid if not because time is distanced from itself, set-outside-itself, ecstatic, in a *distentio* required by an *initial situation of assistance* that is itself mandated by retentional finitude? That the spatial metaphor's privileging of *a* tone does not appear to Husserl as *posing a* problem is in fact the allure of the analysis: the past is placed in perspective that has (as does the spatiality of a world of objects) an *inside* and an *outside*, a *beginning* and an *end*, *distance* and *proximity*, and if retention cannot be confused with memory, it is because at the end of the temporal object's flux,

> the whole disappears into obscurity, into an empty retentional consciousness, and *finally disappears altogether* (if one is permitted to assert that) as soon as retention ceases (1). (28)

Can this be affirmed? In the footnote, "(1)," Husserl specifies that the temporal perspectives in which spatial objects appear, themselves in spatial perspectives, demonstrate that they are simultaneously temporal objects—but would require us to leave the immanent sphere, not being temporal objects as such qua tone or melody. Why? Is it not because the nature of

temporal-object flux, in its *co-incidence* with the flow of consciousness, *forbids beginning and ending qua a spatial object* such that *it simultaneously appears in a non-immanent realm*? Heidegger will analyze spatiality as being-for . . . rooted in preoccupation, in care, that is, temporality, thus reversing the entire proposition.

Additionally, *in the same gesture* Husserl *proposes* (despite the parentheses) the possibility of an actual disappearance, complete, pure, and absolute, and postulates, as we shall see, *infinity as retentionality and, more generally, as memory*.

Analysis of the past as a "kind of temporal perspective" introduces the theme of a double intentionality in isolating each objective.

> Obviously we must recognize our references to intentionality as ambiguous, depending on whether we have in view the relation of the appearance to what appears or the relation of consciousness, on the one hand, to "what appears in its way of appearing" and, on the other hand, to what appears *simpliciter*. (28)

Tone's purpose is its longitudinality. But is it possible to separate the purpose *of* tone from what it is the tone *of* without losing precisely the *plenitude* of its temporality?

> We know that the running-off phenomenon is a continuity of constant changes. This continuity forms an inseparable unity, inseparable into extended sections that could exist by themselves, into points of the continuity. (29)

And are these fragments and phases not the very tones of the melody *as* tones-*of-the-melody*?

> The parts that we single out by abstraction can exist only in the whole running-off; and this is equally true of the phases, the points that belong to the running-off continuity. . . . This continuity . . . is immutable. Just as each point of time (and each extent of time) differs "individually," so to speak, from every other one and just as no one of them can occur twice, so no running-off mode can occur twice. (29)

Time-consciousness can occur only once, and the enigma is precisely that every repetition of *a single tone* produces *a different consciousness-of-tone*; this *repetition* enigma does not bother Husserl, however, since for him it is *not an enigma*. And this is the case such that even when in quotation marks, "individually" contradicts what he has said immediately before

it, the "just-having-been" of reasoning, as if one could only construct temporality as a process of individuation by positing—in advance—"individuality." Simondon mounts his critique of the concept of a hylomorphic individual on just this kind of artifice.

Passing, Swirling, Spinning

In the hyletic analysis of tone, it is the note's musicality that is lost. As Husserl eradicates idiomaticity from the logos, he also erases the musicality of everything heard. Since all tone is individuated on the pre-individual ground of musicality, all language "sings"; the smallest noise rises up from the world's symphony. The ear is originarily musical, and this is precisely its temporality. All temporal objects detach from this grounding, incessant musicality from which they are projected and to which they are linked as in a "fade-in."

Yet this is just what Husserl precludes in claiming that no mode of "running-out" can take place twice since the temporal object has a head, or core, and a tail, retention of retentions, a beginning and an end delimiting an open unity of phenomena where "now" can be addressed again:

> The running-off modes of an immanent temporal object have a beginning, a now-point, so to speak. This is the running-off mode with which the immanent object begins to exist. It is characterized as now. In the steady progression of the running-off modes we then find the remarkable circumstance that each later running-off phase is itself a continuity, a continuity that constantly expands, a continuity of pasts. To the continuity of running-off modes of the object's duration, we contrast the continuity of running-off modes belonging to each point of the duration. This second continuity is obviously included in the first, the continuity of running-off modes of the object's duration. (Husserl 1991 [1966], 29–30)

This analysis is illustrated by a diagram that should be seen next to the conical form in Bergson's *Matière et mémoire* (*Matter and Memory*), but here it is more dynamic since there is no partition between the present and memories (it is missing apprehension of primary retention, however): for Bergson, "the call to which memory responds emanates from the present" in return and inversely—and this is a matter of secondary memory: there is an originary "oscillation" between perception and memory. In *Consciousness of Internal Time*, the diagram describes a process of the

temporal object's individuation organized around a now-point (O) qua mode of out-flowing or running-out by which an immanent object *begins* to be, that is, to pass by, namely, to disappear. To begin is here to begin the end—to end.

How can we distinguish the beginning from the end if the beginning is tantamount to the beginning of the end? Can we establish and properly distinguish a beginning and an end? If the temporal object—as flux—is a lived experience connected to a flow of consciousness, is it not in some way previous lived experience (as Bergson says)? However, if this consciousness of flux can only begin, in its very newness, in its flow toward separation from all past flux constituting secondary memories, themselves already-there qua running-out, is this separation—this gap—not precisely that of a vortexual flux within a larger flow (the temporal object flowing within the flux of consciousness, which is *time*) in which it is detached, which gives it "body" but where it cannot be said that it finds its now since it is not the now but the vortex, a flood from which it can in no case be isolated and from which it would thus be impossible to separate it? Analysis of this separation (the large now), however, requires isolating the flux to which it is attached, since for Husserl (not for Brentano) it is necessary to bring a perception absolutely separated from imagination into being—and in so doing, to reduce the musicality of any tone, that is, of its temporality.

Compared to Bergson's cone figure, Husserl's undeniably lacks any distinction between the "continuity of pasts" as primary memories in the presence of temporal objects, secondary memories designated E (, "the line of equivalent presents eventually replaced by other objects," and the correlative disappearance of OE designating the descendent diagonal of the second diagram.[7]

O P E
P'
E'
O E (. . . . .
OE Set of present instants
OE' Descent into the depths
EE' Continuum of phases (present instants with past horizons)
E (Line of presents eventually replaced by other objects

But is the impermeable wall Husserl posits between primary and secondary really necessary? If the temporal object's actual presence is finally completely singular, the lingering question is knowing whether it is not essentially pre-ceded by an originary secondarity of memory—and of the now, through a default of origin whose effect would be that of an echo.

The diagram's object is to show the continuity of the primary in the large now, as opposed to the discontinuity of secondary recall, and most strongly, the archi-discontinuity of tertiary memory insofar as it constitutes the possibility of appearing as the non-lived. But this evidence appears only at the price of a solidifying of the temporal process of individuation, as if an extremely narrow aspect of the phenomenon led to its loss, just as the attempt to listen to each tone of a melody would prevent hearing it as a melody.

The vertical EE' "at each moment joins with the continuity of present instants in the descent to the depths. This vertical demonstrates the fusion of the present with its horizon of the past in a continuity of phases. No single line indicates retention; only the ensemble constituted by the three lines indicates it" (Ricœur 1983-85, 3: 43). Ricœur regrets the reification of the phenomenon consisting of the static separation of the two continuities (OE' and EE'), completely supportive of the separation of primary, secondary, and tertiary in which temporality is de-composed and effectively completely disappears:

> The diagram, indicating a series of limit-points, fails to show their retenional implications. In short, it fails to show the identity of distance and depth that causes these instants to become others are included in a unique way in the present moment's thickness. Truthfully, there is no diagram adequate to retention, and to its mediation between the moment and duration" (48).

But this is also, and above all, a failure to think *modification* as recurrence: as the return of the modification of retentions onto the constitution of presentation itself.

Everything is decided in Husserl's Paragraph 11 (1991 [1966]). What is at stake is clear: absolute commencement as an impression transmitting its absolute nature to a retention even while assigning it limits.

> The "now-point," with which the "production" of the enduring object begins is a primal impression. This consciousness is in a state of constant change: the now-tone present "in person" continuously changes (*scil.* consciously, "in"

> consciousness) into something that has been; an always new now-tone continuously relieves the one that has passed over into modification. But when the consciousness of the now-tone, the primal impression, passes over into retention, this retention itself is a now in turn, something actually existing. While it is actually present itself (but not an actually present tone), it is retention *of* the tone that has been. (30–31)

It is the passage as such that is described here as the ceaseless, inherent modification in the beginning of a continuing, developing, and passing impression, developing in passing: this is exactly the description of longitudinal intentionality. But the very idea of a now-point qua absolute commencement precludes any thought of the essential phenomenon of modification (modification qua recurrence) since while enclosing the temporal object within the exclusive field of the originary impression, of presence, it operates a reversal in which it is erased.

It is undeniable that on the contrary, as it results from the pre-understood (pre-"known") "traditional" and "historial," the precondition for everything heard and unheard, modification pro-cedes from an already-there. Retentional recurrence would thus be comprised, as will tardily be the case for Husserl himself, with the large now (which has become historic) of geometry, as an "originary" recurrence of the secondary as (re)constitutive of the primary: only just such a recurrence of "sedimentary retention" makes the phenomenon of reactivation qua différance of a *Rückfrage* possible.

Beginnings have effects that are themselves re-beginnings. It could be objected to this that such a rooting of all beginning within the repetitive horizon of an already-there destroys the individuality of this now, this poem and not another, this melody as no other, this unique instance of this hearing of the poem, the melody, like no other repetition of the same poem or the same melody. But this is precisely the problem of the "my own" or the idiomatic, always already engaged across and through a common idiomaticity, one relative to an always more "global" other, less "my-own," that must be endured as the question of time as simultaneously calculation and indetermination, a banal community of the idiom and the absolute singularity of the *eidos*. "Every actually present now of consciousness, however, is subject to the law of modification. It changes into retention of retention and does so continuously. Accordingly, a fixed continuum of retention arises in such a way that each later point is retention

for every earlier point" (31). But this would then mean that a recurrent connection would modify the retentions of retentions not only as disappearing phenomena but already as a kind of reactivation at the heart of the originary, passing impression, as an echo phenomenon altering and enriching the tone and adding to the abundance of harmonics, convergences, chords, syncopations, timbres, forms of timbres and dissonances, and so on, which com-pose a melody's temporality as musicality. A simple "continuity of retentional mutations" would not be able to describe such phenomena. Everything depends here on the impoverishing privileging of tone over melody, the description of which appears, in the end, to be rigid and empty. There is a form of recurrence, a conjoining, that could not appear in a linear diagram, as Ricœur points out, that does not only operate within the limits of a graphic figuration, to its spatiality. Husserl is able to rediscover the scheme of directed temporal phenomena in this spatial schema only because the recurrence with which he is concerned is limited, bordered by a starting point and an end that can be determined and reached, and which from this perspective is not truly the end, in the sense that it will take, qua being-for-the-end, not the effective engendering of recurrence, but a kind of feedback. A true recurrence would be the endless aporetics of the play of indeterminacy. It would come from a past that I did not live, at once mine and factitious, articulating the already-there of my effectively-lived past onto an other already-there, a non-lived one that I must be. It would be recurrence imposed by retentional finitude, by what the responding cartography always already needed to "be oriented in the already-there" (as in its own lived past) forcefully bringing with it: an imagination of real territory, that is, an anticipation.

However, this is where Heidegger introduces a new metaphor by which he will properly clarify the possibility of *Dasein*: its resolution as effective transmission of the treasury of the already-there's possibilities as *non-lived*; as *heritage*.

Heritage

Husserl *speaks* clearly of heritage here, but cannot *think* it:

> And each retention is already a continuum. The tone begins and "it" steadily continues. The now-tone changes into a tone-having-been; the impressional consciousness, constantly flowing, passes over into ever new retentional

> consciousness. Going along the flow or with it, we have a continuous series of retentions pertaining to the beginning-point. Beyond that, however, each earlier point of this series is adumbrated in its turn as a now in the sense of retention. Thus a continuity of retentional modifications attaches itself to each of these retentions, and this continuity itself is again an actually present point that is retentionally adumbrated. This does not lead to a simple infinite regress, since each retention is in itself continuous modification that carries within, so to speak, the heritage of the past in the form of a series of adumbrations. (Husserl 1991 [1966], 31)

It might be thought that there is recurrence here, since Husserl adds: "but it is not the case here that in the horizontal direction of the flow each earlier retention is simply replaced by a new one, even if continuously. Rather, each later retention is not only continual modification that has arisen from primal impression; each is also continual modification of all earlier continuous modifications of that same initial point" (31). But this means that across each retention qua "continual modification that has arisen from primal impression," within the primary continuity of retentions, it is always the impressional present that is being disseminated. And this is what distinguishes primary retentions from secondary. It is always a matter of establishing that "retention is a broadened present that ensures not only the continuity of time but the progressively attenuated diffusion of the now-point's intuitivity to everything the present instant retains within itself or under itself. . . . Retention's effect is not only to re-connect the recent past to the present but to communicate its intuitivity to that past" (35; emphasis added). Yet if "the originary impression passes itself in retention" (Ricœur 1983-85, 3: 48), it does so without actually passing, since it does not return again—it does not return affected by its past but rather affecting it. In fact, the past itself qua heritage would have to be affected in its very conditions of access by the passing initial impression: the passing of a new tone would free up new conditions of access to "past" tones, revealing them as undetermined, and these retentions of retentions would in turn have to come back after their modification to affect the nature of that passing. The return of retentions is thus (re)constitution of passing as impression. All retentions of retentions found to be affected by the now-point's modification affect it in returning, requiring the generative in "the modification of the now-point" to maintain its two directions: such maintenance is the large now.

This is what Husserl seems to say, but not what he actually says, since he would then have to start from the heard melody in the same way as from all reactivation processes. As, for example, in geometry, whose data are modified in being retained, by what passes as *Rückfrage*, "further inquiry" in which the retained, in returning, in effect (in return) constitutes this question in an après-coup. And yet that would imply the permeability, after the fact, of the primary to the secondary and tertiary.

The theme of "heritage," completely internal to originary impression, cannot be thought apart from an already-there. Ricœur, after having made his peace with Heidegger, was able to say that "this second-degree intentionality expresses the incessant revision of the oldest retentions by the most recent ones, which consist of temporal distancing." But what is revised and what revises? According to Husserl, the oldest are altered, and the most recent (the most intuitive) do the altering.

Where does "heritage" begin—that is to say, its modification? Where is its "now"? Where does the force of the whirlwind come from? In the reading of a poem, I begin, and by the time I have finished the first verse, retentions from the beginning have been crossing and re-crossing, chasing the originary impression into the second beat, the third, and so on, through all the alliterations, rhythms, and prosodies full of a musicality that is itself filled with timbres, harmonies, syncopations, and so on—which re-charge both the retentional past and the passing originary impression, poetically producing its passage. I then reread the second verse, to give it a new echo—the first verse. But this rereading, which (un)determines my reading, in effect coincides with it. And when I find that I have memorized the poem, or simply that I have read it before, that prior reading—previously done but sharing in a "proper past," that is, in secondary memory, inhabits the subsequent reading just as the second verse is inhabited by the retained reading of the first verse. It is correct to say that one retains a poem. But the retention, meaning here keeping it, maintaining it within oneself as "secondary" memory that bonds, that adheres to primary memory.

Secondary retention is already within the primary impression, expressing it, imprinting the effects of its indeterminacy there. It itself is inhabited by the retention of non-lived experience as both essential and that is nothing other than its world. It is made possible by an essential already-there composed of non-lived memories preserved as conscious images.

For Husserl, the lived blocks all such thoughts, a lived that Heidegger calls the metaphysical concept of phenomenology.

Husserl introduces the image of heritage at the moment "when he draws to one side the hypothesis of infinite regression within the retention process . . . [and] seems thus to attach the idea of heritage to that of a limitation in the temporal field, a theme to which he returns in the second part of [Husserl's] Paragraph 11" (43). This limitation of the temporal field is, however, not retentional finitude. But what is it—what is its nature? In other words, what is the real nature of broadening? What is effectively needed to broaden?

When Husserl addresses the question of transcendental history, he locates the possibility of originary geometric intuition within the possibility of cumulative science as intuition of re-actualization of invention's present. He can no longer relegate tertiary memory to a place outside it: the large now then becomes a *very* large now, an archi-now, and its composition a (re)composition. Husserl's "The Origin of Geometry" is constructed from tertiary memory, from consciousness of the image of a world-historial given through writing's orthothetic prosthetization, as the condition of the secondary's entry into the primary and, through re-activation qua re-animation, sur-vival. No invention, no geometric tradition can exist without writing (without the Living Present's mortification), because of living retention's limitation. But here, in not separating lived from non-lived, primary from secondary, secondary from tertiary, Husserl once again calls the phenomenological principle itself into question. Heritage begins with perception, uniquely with it, and is interrupted by it: perceptive intuitivity, posited as a basic principle, prevents the secondary from entering it.

The Turing Machine's Echo of the Thing [*Machin*]

Yet while the thesis of the beginning limits analytical development, the notion of fading later in the paragraph must be contested.

> If the melody has run its course and silence has ensued, then the perception's final phase is not followed by a new phase of the perception but simply by a phase of fresh memory, which in its turn is followed by another phase of fresh memory, and so on. Thus a pushing back into the past continually occurs. The same continuous complex incessantly undergoes a modification until it

> disappears; for a weakening, which finally ends in imperceptibility, goes hand in hand with the modification. (Husserl 1991 [1966], 32)

Where does the end end? At what moment is this fading away completed? When does *perception* cease, since retention lasts beyond sensation?

In the case of primary memory, it is no longer possible to speak about simple perception, in the strictest sense, since retention always already inhabit the large now: perceptual presence extends to the black hole of retentional absence, a kind of im-perceptibility already being at work in the being-perceived of the temporal object, as its modification. The beginning, never having been more than the modification of beginning is, properly speaking never the beginning but already the vanishing. It is difficult to see how even to speak about final imperceptibility. Obviously, when sensation itself ceases, im-perceptibility also changes its nature. But at that moment, rather than continuing to impose a final limit impossible to describe, is it not necessary to interrogate that mute persistence, that incessant profundity, that constitutive in-completion—beyond all apparent discontinuities—of what has been? Such an interrogation is the echo.

But this is not at all Husserl's question here, where the challenge is to absolutize the opposition between primary and secondary, establishing that if there were no clear border between the beginning and the already-there from which we say it emanates, nor between the end and the flux to which we say it returns, there would also be no border between the temporal object's being-there and its no-longer-being-there—between perception and imagination.

Yet, quite strangely, this leads Husserl to posit:

> —an absolute limitation—in fact—of the temporal field, and
>
> —a limitlessness—by right—of memory.
>
> "The originary temporal field is manifestly limited, precisely as in perception's case" (32).
>
> —As absolutely limited—and there is in fact and by right no possibility of compensating for the originary temporal field's restrained extension: its narrowness is as radical as its beginning is absolute; the temporal field is like the ocular visual field "on objective space," essentially and always identically limited: "Indeed, on the whole, one might dare to assert that the temporal field always has the same extension. It moves, as it were, over the perceived

> and freshly remembered motion and its objective time in the same way as the visual field moves over objective space" (1) (32).
>
> —As unlimited, primary memory is by right idealizing [*idealiter*], as Note (1) to [Husserl's] Paragraph 11 discretely indicates: "The limitation of the temporal field is not taken into consideration in the diagram. No ending of retention is foreseen there, and idealizing a consciousness is probably even possible, where everything remains preserved retentionally" (32).

In other words, Husserl has it both ways: in order to ground the possibility of an absolute beginning, there must be an end, a terminus, an absolute disappearance. But in order to be able effectively to describe such absoluteness as a phenomenon's *absolute continuity*, it is necessary to assert *idealiter* an absolute retentional effectivity in the phenomenon's course, *to suspend all of primary memory's factual limitation*, returning it to its triviality and excluding all possibility of compensating for the temporal field's limitation. In short, this is a question of excluding the prosthesis. But what does *idealiter* mean here? Its presentation is precisely comparable to Turing's: he constructs a theorem describing a machine, putting the machine-nature of the machine in parentheses; abstracting it de-concretizes it and there is no more machine, no more thing that is all machine.

And yet the question is really one of the echo of the machine-thing, the constitutive echo of temporality qua echo of the *what*, of *matter* considered as *irreducible transcendence* rather than as *hyletic datum*.

The *Augenblick* [Moment] of the Visual Clock

Husserl utilizes this visual-spatial field metaphor because he reasons quite formally in terms of the "originary temporal field"'s apriority, as if it were possible for an optical lens, with its depth of field, image "definition," and so on, to substitute or compare it to a chronological lens, if not a chronometric one, with its depth of time, its temporal perspective, the decreasing "definition" of its retentions, and so on, down to final disappearance. The visible thus orders the entire analysis of time, as if presence were better guaranteed through optics than through the voice. But should we not on the contrary question the fact that the "originary temporal field" is always already taken in instrumental objectivities, particularly from the perspective of the primary/secondary connection; as

photographic lens, the visual clock "capturing" space and time with a single *click*, all at the same instant [*alles im selben Augenblick*]?

To take "the limited field of temporality and its finitude—the finitude of consciousness—"into consideration" would require articulating "living memory" onto a dead memory that has always already provided for that possibility, onto a compensation that not only acts as a support when it "flinches" but that establishes it in its originary possibility. And a "consciousness endlessly idealizing" could only be God's. What is here excluded is the end (of life, and the end of life *in* life).

The concept of the now's "broadening" is modification. But this is defined by its positivity, its infallibility; it is not inhabited by cartographic (Borgesian) finitude: Primary memory is a positive modification of impression, not its difference. In opposing the representing of the past in images, it shares with the living present the privilege of the originary, even though in a continuously weakening mode, thus figuration can never occur through images. Paragraph 12 explains that the retention that is not a perception nevertheless appears to perception, and through it specifies "the nature of the modification we have designated as retentional" in opposing primary memory and representation or image-consciousness.

This argument is always one against Brentano. Were there to be figuration through images, there would also be imagination as the impossibility of distinguishing past from phantasm. Primary memory is "the datum of the past." This also means that secondary memory is not tertiary memory: what it remembers is constituted in its own time from an originary impression.

Tertiary memory has clearly not been taken into account. Phenomenology in general, and particularly the phenomenology of time, suspends all worldly reality to which the tertiary appears, in order to account for what properly allows for the constitution of this reality. But in the case of an image-consciousness that is also consciousness of time, as for example in looking at a photograph—which is not, properly speaking, a temporal object (it does not flow with time)—its "intention," which is temporal, can no longer reduce the transcendence in intention itself. It produces the reality effect because the noema contains a certainty, constituted through the transcendence of the (support) object, through an incursion of the non-lived, the that was. The photographic noema is characterized as giving me the having-been of what I have not lived—necessitating the question's extension to the having-been of cinematic sequentiality qua

temporal object, and to the question of montage, the name of cinematographic cartography.

Image-Consciousness, Memory Loss, and Freedom to Begin Again

All temporal impression is infused with retention, and all retention, primary or secondary, is linked to originary impression (Paragraph 13 [of Husserl's *On the Phenomenology of the Consciousness of Internal Time*]). Thus its possibility cannot in any case be pre-ceded by non-lived experience—by radical im-perceptibility as the experience of a tertiary trace. On the contrary, originary impression must establish the evidence of a re-remembering (a secondary memory) just as it establishes primary retention: I can re-activate this memory, which is only possible because it has been lived; it is founded in originary impression, with the difference of all image-consciousness.

When retention is not primary, consciousness of the past has a certain freedom (Paragraph 14),

> —that it enacts as a secondary memory in which the past can be re-composed, "embroidered" with it (we shall shortly return to this major point), or
>
> —that it enacts as image-consciousness, strictly speaking, namely, by its transcendent representations such as icons, drawings, photographs, tracings of all sorts, and other mondo-historial *what*'s.

But what happens in memory loss? Tertiary memory is above all else what substitutes for memory loss; that is, the very retentional finitude that Husserl claims to erase *by right*.

This retentional finitude is in play when Malraux analyzes Baudelaire's fallible optical memory, which is irreducible and prevents correction of the default in art's Wholeness, which in the museum appears as the seriality of works.[8] And what will substitute for this default of memory, not in order to correct the default in art's Wholeness, but to test it in the confrontation between works? Photography.

In asserting that a secondary memory's possibility precedes tertiary memory, does not depend on it, thus in principle asserting the possibility of constituting a tertiary memory, Husserl effaces a basic given of the *who*'s memory—precisely its finitude, its tendency to fade away insofar as it can

essentially be supplanted by a transcendent third, a *what*. The possibility of memory loss is precisely what constitutes memory itself. Memory loss is inscribed in the intention of what I remember, even while it can vanish, and while this vanishing can be interrupted, revived, or supplanted by a fixing, a (photo-graphic) recording. If this were not the case, where would my secondary memory find its support? What would initiate the chain of recollections and voluntary and involuntary reminiscences called flux on its aleatory course? If my living memory could not conjoin with a dead, grammatical, repeated, and automatized memory—if it could not and did not need to be reactivated by dead memory, what intentional confidence could I have in it? Would it still have an intentional possibility of secondarity? And if it was not *sought out* through certain objective memories, what would its real activity then be? If it *could* and finally *had to* be searched out, it would be because objective compensation is essential to it. What Leibniz gives to thought in his Characteristic, as an essential aspect of memory's grounding, is the possibility of beginning again where one had been, whatever the effects of secondary memory's finitude and the vanishings it can engender, that it must even inescapably engender; *to give* the "*who*," or what is called consciousness, the possibility of being separated from ordinary, vital flux, from the pure time of reaction and action, the time of muscles and nerves controlled by the vital reactive system, is an essential aspect of the *what* in general, qua memory (tertiary) support. This is where Bergson's interpretation is no longer sufficient. But neither is Husserl's. And although Heidegger appears to aim for a similar possibility under the name of *datability* (1985, 314ff.), grounding originary temporality in the freedom of existential finitude, we now know why, looking back on the stages of Husserl's regression: Heidegger regressed as well.

The "transcendence" of tertiary memory is *constitutive*: no temporal object's technicity can be reduced, any more than that of a photo-graphic that-has-been. The transcendental field is thus a-transcendental—beyond empirical/transcendental opposition, distinguishing them without placing them in opposition.

Reconstitution, the Phonogram's Return as Analogic *Zeitobjekt* [Time Object], the Foot

Returning to the melody addressed briefly then abandoned, Husserl's Paragraph 14 describes the possibility of a *reconstitution* in secondary memory of the primary chain of protentions and retentions of a "quasi-hearing."

> Let us consider a case of secondary memory, We recall, say, a melody that we recently heard at a concert. It is obvious in this case that the whole memory phenomenon has exactly the same constitution, mutatis mutandis, as the perception of the melody. Like the perception, it has a privileged point: to the now-point of the perception corresponds a now-point of the memory. We run through the melody in fantasy; we hear, "as it were," first the initial tone, then the second tone, and so on. At any particular time there is always a tone (or tone-phase) in the now-point. The preceding tones, however, are not erased from consciousness. Primary memory of the tones that, as it were, I have just heard and expectation (protention) of the tones that are yet to come fuse with the apprehension of the tone that is now appearing and that, as it were, I am now hearing. the now-point once again has for consciousness a temporal fringe, which is produced in a continuity of memorial apprehensions. . . . Consequently everything is *like* perception and primary memory and yet is not itself perception and primary memory. Of course, we do not actually hear and we have not actually heard when we let a melody run its course tone by tone in memory or fantasy. (Husserl 1991 [1966], 37–38)

It is possible for Husserl to speak of re-constitution because re-remembering

> itself is presently and originally constituted recollection and afterwards just past recollection. It itself is built up in continuum of primal data and retentions and in union with them constitutes (or rather: re-constitutes) an immanent or transcendent enduring objectivity. (38)

Here we see the characteristic possibility of a secondary memory's being analyzed as repetition. But, as Ricœur emphasizes, such an analysis is a simplification:

> The example is simple, in the sense that, given the fact that the evoked event was recent, memory's entire ambition is to reproduce a tempo-object. In this way, Husserl clearly thinks, all the complications associated with the

> reconstruction of the past are erased, as would be the case for the historic past or even for remote memories. (Ricœur 1983-85, 3: 51)

If the complexity, linked to the irreducible possibility of forgetting, had been taken into account through analysis of secondary memory, it would have been impossible not to accord it a constitutive dimension in primary retention itself. And in the subsequent paragraphs, repetition in secondary memory opens the possibility of a selection, a dis-assembling and a re-assembling of memory. This selection, it must be remembered, occurs in all retention, if it is true that the modification of which it consists is not automatic or predetermined: if it were predetermined, two hearings of the same objectively (orthothetically) recorded and objectively repeated melody, for example, on a compact disc, would result in identical experience. But it is evident that any two hearings of the same melody are never identical and, as Husserl himself says, the temporal object is itself inscribed with the fact that it can never occur more than once. The same object, repeated twice, produces two different aural experiences since each hearing, like the retentions of retentions, is a process of selection.

Since it is the inherent complication of such musical experience that is the focus of investigation, primary, secondary, and tertiary memory are co-implicated, the borders between them permeable. A melody recorded on an analogic or numeric device is heard a first time. The same melody is heard again, later, from the same disc. In the new (second) hearing, the tone just-having-been owes everything, in its passage, to the prior passage, apparently vanished, of the preceding hearing: its modification is grounded in the secondary memory of the first hearing—not only does it return, but this return constitutes it. The "whole" is associative. Primary retention is already selection according to criteria established in the course of previous associations, "selection" in the carto-graphic" sense, that is, a reduction of what passes into a past, retaining only what the criteria of secondarity already inhabiting the process of primary retention permit it to retain. Were this not the case, nothing would be retained, since nothing would pass away, nothing would or could have passed, as Borges's one-paragraph story "On Rigor in Science" teaches us. And modification, which is this process, occurs as elimination and preservation according to a *possible* that is also an anticipation, and which must be thought as being-for-the-end.

Moreover, this secondary memory, indissociable from primary memory, is also a tertiary memory, an "image-consciousness," namely, the support of a recording providing the possibility of experiencing the analogic or numeric temporal object; this is because there are certain overlappings and co-incidences such that différance, rooting the primary in the secondary that has become irreducible, cannot not be tested. The support for the tertiary is the cartographic instrument. Because the same consciousness of the image, namely, the phonogram, is finally what roots the primary and secondary in each other, the implanting of the second primary into the memory of the first primary become secondary, thus becomes obvious. This obviousness can only grasp the fact of the recording's (orthothetic) exactitude. But this orthothetic evidence is the phono-graphic revelation, just as there was photographic revelation, of the structure of all temporal objects.

This teaches us something else about analogic ecstasy: the coincidence of entered data and of the entry of data qua sequences reveals a différance by identification as in orthographic writing; with literal/literate difference, however, the sequence coincides completely with what is being heard: the sequential release of notes in objective time is identical each time (*modulo* the imperceptible variations in the disc's rotation speed); at the moment of its capture, the sequence coincides objectively with the sequence from the moment of its first hearing, and of the second along with the first, and so on. In this objective co-incidence, the temporality of the *who* interlaces more intimately with the analogic and numeric *what* than in linear writing, since the ortho-gram's reader does not reread a text in the same objective temporal sequence each time: the reader can stop on a given sentence or phrase without losing the unified movement of the flux, language's breathing, and perhaps it is the very totality of flux that can be upset. Many cases demonstrate this: a poem's metrics could be so musical as to require finding the correct rhythm and breathing for reading it; the reader is like a pianist interpreting a melody. Yet this does not alter the actual differences between any two readings or hearings, since difference is pre-ceded by prior associations.

Event-ization As Retention's Effective Fallibility

If for Husserl re-remembering must be *secondary*, it is because in Paragraph 14 of *On the Phenomenology of the Consciousness of Internal Time*,

where melody is quasi-heard within the recollection of a finished concert, *imagination* comes effectively into play as the capacity for selection, which will already have complicated the question from the outset: "the example is not, however, absolutely simple, since it is a matter this time not of the same tone but of a melody that one can go over *in imagination*, following the order of first tone, then second, etc." (Husserl 1991 [1966], 39). This is imagination introducing the fiction of an *as if*:

> The difference is thus between perceived melody and quasi-perceived melody, between hearing and quasi-hearing. This difference signifies that the "now-point" corresponds with a quasi-present which, beyond its status as an "as if," shows the same traits of protention and retention and thus the same identity between the "now-point" and its string of retentions. The choice of the simplified example—the same melody re-remembered—is made to allow the transfer, in the order of "as if," of the continuity between impressional consciousness and retentional consciousness, with the totality of analyses connected to it. (Ricœur 1983-85, 3: 52)

Now it is a matter of emphasizing the continuity between primary and secondary, in order to show their radical discontinuity from the tertiary. Ricœur remarks that the possibility of repetition produces historic knowledge. But this necessarily means that for the historian to be able to construct the "retained past" for all possible forms of retention, especially for objective and objectively finished retentions, "in a quasi-present with its own retrospections and anticipations, certain of which belong to the [retained] past of the real present" (52–53), all opposition must be abolished, not just between primary and secondary memory but between primary and tertiary as well.

"Originary" means continuity for Husserl, and if secondary recall is a quasi-hearing, it is because he can re-constitute this continuity, though always only to some degree: secondary memory is fallible, that is its secondarity. This is a *datum* escaping to the phenomenologist: selection is always at work, whether voluntary or involuntary, conscious or unconscious, and only ortho-thetic, tertiary memory can avoid it, even only relatively, its straightforwardness only displacing the *who*'s ineptitude: secondary retentionality being finite, tertiary retentionality can supplant it since finitude already inhabited the primary, without which there would have been no need for the tertiary to *assist* the secondary; there would be nothing other than a pure and simple repetition of the same. And when "the same" is

preserved in tertiary substitution, it is no longer the same temporal object it was; it is, rather, finitude *qua phantasmatic* selection by imagination giving access to the temporal object's *temporality*. A historic science's constitution, then, would have to be what attempts not to eliminate imagination but to thematize its conditions.

The primacy Husserl accords to continuity relative to difference, and to perception relative to non-lived experience, is in fact the core of the Husserl/Heidegger debate. But Heidegger will not even acknowledge the crack in *Dasein* qua retentional idiocy (qua Epimetheus's legacy); that is, as technical and prosthetic. Transcendental freedom is also at the heart of this debate, announced in the possibility of voluntary memory.

> Now recollection can occur in different forms of accomplishment. Either we execute it in a simple grasping, as when a memory "rises to the surface" . . . [o]r we execute a memory that actually does reproduce and repeat, a memory in which the temporal object is completely built up afresh in a continuum of re-presentations and in which we perceive it again, as it were—but only "as it were." The whole process is a re-presentational modification of the perceptual process with all of the latter's phases and stages right down to and including the retentions: but everything has the index of reproductive modification. (Husserl 1991 [1966], 39)

But the opposition between voluntary and involuntary memory is the most fragile of all: it needs grounding both because there is always the possibility of voluntary memory and because voluntary memory escapes, is only ever partially achieved, is never completely possible, is always impossible; is, in its essence, forgetful. It is never fully voluntary (i.e., independent of world in its world-historiality). This is clearly all the more true in the case of the voluntary memory in lived experience of another (i.e., reactivation). But this forgetfulness is already true of autonomasia. When Husserl opposes evidence to intro-pathy in the first Investigation, he allows fallibility to pass between consciousnesses. Inscribing fallibility in primary retention itself, and a fortiori in secondary, Husserl says that consciousness itself is apparently failing. Yet Husserl absolutely resists this: a failing consciousness is no longer simply a consciousnes*s*, it is present death, the "presence" of death within the living flesh of the Living Present, and of death in life as lived experience.

Failure and Retro-spection as Deferred Possibility of the *Who* qua *We*

If what Husserl intends is possible only within the horizon of its supports, aids, crutches, and prostheses, the possibility of repetition must belong to tertiary memory, which affects thought insofar as it is itself constituted in the temporal object.

> We also find the simple looking-at or apprehending [occurring] immediately on the basis of retention, as when a melody has elapsed that lies within the unity of a retention and we turn our attention back to (reflect on) a part of it without producing it afresh. This is an act that is possible for everything that has developed in successive steps, even in steps of spontaneity—for example, in the successive steps of the spontaneity of thinking. (39)

The possibility of tertiary memory is, for thought, the essential possibility of its reflexivity, in which it detaches and regards the identical as identical, acceding to eidetic variability, the thetic release of an *eidos*, in a retrospection that already proclaims reactivation:

> Certain objectivities produced by thinking are also constituted successively. It therefore seems that we can say: Objectivities that are built up originally in temporal processes, becoming constituted member by member or phase by phase (as correlates of unitary acts that are continuously and completely connected), can be grasped in a retrospective viewing as if they were objects complete in one time-point. But then this givenness definitely points back to another and "original" givenness. (39; emphasis added)

This entire passage could have come from Husserl's "The Origin of Geometry," and though it describes intro-pathy through the lens of a text that is a reactivation, it is also necessary to acknowledge the role of tertiary memory in constituting a transcendental community, and in according the transcendent its constitutivity. Then the possibility of a retro-spection arises, as essential to an intro-spection, itself essential to all possibilities of access to transcendental consciousness, since "thought's objectivities are in effect also constituted successively." Thought as a temporal object is objectifiable as a succession and thus reactifiable. And this is what makes the advent of contemporary technics, as the retentional finitude's industrialization, possible.

This is the entire program of Husserl's "The Origin of Geometry," but meanwhile transcendental consciousness, in becoming *We*, must have departed from its egological monadicity and finally found, in tertiary memory, a certain (re)constitutivity, as orthothetic *what* in which present-time-consciousness and past-time-consciousness can coincide, fixed programmatically in the temporal object by virtue of an orthography in which, in effect, "what is given as just having been shows itself to be identical with what is recollected" (39).

The possibility of an objective correspondence of the just-having-been and the remembered that, as reactifiability and reiterability, is the possibility of ideality sealed within the epiphylogenetic possibility of suspending the worldly temporal flux and re-commencing flux of prosthetized temporality.

The Montage of Flux

To place continuity and discontinuity in dialectical opposition is to oppose production and reproduction, constitution and reconstitution. And reflexivity—without which no *Rückfrage* in reactivation would be possible—would thus be the fruit of the freedom in repetition that constitutes secondary memory,[9] as if in a montage, a cinemato-graphy of recollection that is also its plasticity: "in the same extent of immanent time in which the re-presentation actually occurs, we can accommodate "in freedom" greater or smaller parts of the re-presented event together with its running-off modes, and consequently run through it more swiftly and more slowly" (Ricœur 1983-85, 3: 50) But since there is a difference in each hearing of the identical, as is clear in phono-graphic experience, this montage is what (re)constitutes the Living Present itself, always already dying, as if it were only a plane linked to another plane (a secondary retention), which in turn precedes a plane to come (a secondary protention). This montage is obvious in re-memorization, and what Husserl identifies as the "remarkable" phenomenon of recollection, in which "the past of the duration is given to me, given precisely as the 're-givenness' of the duration" (Husserl 1991 [1966], 45), is in fact not only exceptional but absolutely nonexistent; its very impossibility

> haunts Husserl . . . : if the way in which recollection makes the past present fundamentally differs from the presence of the past in retention, how can a

> representation be true to its object? Such fidelity could only be that of an adequate correspondence between a present "now" and a past "now." (Ricœur 1983-85, 3: 55).

Recovery is impossible, meaning that secondary memory penetrates into primary—except when tertiary memory is present. Whether an active reading has taken place or not, geometry is *always* able to succeed in recovering, since tertiary memory, making both incomprehensible repetition and *Rückfrage* possible, is also the mark of an essential incertitude; this results in epiphylogenetic accumulation of a knowledge of ideality that encompasses a transcendental "we." Such a transcendental transmission is itself possible because the Living Present qua invention is already from the dead present (absence of self). The geometrician/inventor must be able to interrupt the invention process, to be reread and only to be rewritten as the sequential effects of this rereading as it tele-communicates "its" différant identity so that ideality-in-repetition can be (re)constituted for it. The passage for this invention must already be open through repetition of the invention process's already-there so that at any moment it could be interrupted and re-invented, repeated and differentiated in that repetition toward the *telos* of an ideal identity. Derrida, commenting on the passage in "The Origin of Geometry" in which Husserl engages with the question of writing, points out the theme of retentional finitude we have been exploring here: "traditional sedimentation in the communal world will have the function of going beyond the retentional finitude of individual consciousness" (Derrida 1989a (1962(, 57). But that can only make sense if transcendence constitutes the archi-large-now of a community of geometricians, outside of the living present, affecting the originary moment of geometric invention itself. This is an issue radically important to the entire Husserlian enterprise, since "the free reiteration of the past in recollection is of such importance to the past's constitution that the entire phenomenological method itself rests on the power of repetition—in the double sense of making return and of reiterating the most primal experience of retention" (Ricœur 1983-85, 3: 55). Only an originary, "cinemato-graphic" possibility for pausing over the images of life, of ages and epochs, frees these special effects such as slow motion, fast motion, condensation—idealizations by which something new appears in a transcendental history.

What is true of idealizing reflective thought is also true of all thought qua temporal flux: the unity of flow is a montage in which, for each new object, a re-montage of recollections operates at the same time that "the present object" is "produced," making it pass by and making the past.

History, Retroactivity of Expectations, and Deferred Time

A specific problem is thus posed by the expectation contained qua expectation in recollection—and thus already fulfilled. Repetition of the series of repetitions and protentions is possible, and for Ricœur this possibility enables the further possibility of the historic past's construction:

> The present is at once what we live and what realizes the anticipations of a recollected past. In return, this realization is inscribed in memory; I remember having expected what has now happened. This realization then becomes part of recollected expectation's significance. (This trait itself is important to an analysis of the historical past: it is part of the historical past in that it leads to the present across the constitutive expectations of the past's future horizon.) (Ricœur 1983-85, 3: 57)

But here, the opposition between primary, secondary, and tertiary memory becomes *actually* impossible. And at the same time, an *identical* repetition of an expectation is problematic:

> In this sense, the present is the outcome of a recollected future. Realization (or not) of an anticipation attached to a remembered event reacts on memory itself and, through retroaction, gives to reproduction a particular tint. . . . The possibility of being turned toward memory and of seeing in it the expectations that were subsequently realized (or not) contributes to the insertion of memory into the unitary flux of lived experience. (57)

"Unitary flux of lived experience" implies the impossibility of any identical repetition precisely because of protentions' and expectations' realization—of their selection, and knowledge of this realization immediately and ineluctably brings about the selection of new protentions, based on protentions that had become retentions through retroactivity. The possibility of a deferred time as historic time itself constituted from the orthothetic possibility of the *what*, is lodged there. Retentional fini-

tude imposes selection at the very heart of an anticipation that is already memorization qua forgetting.

> This second goal is inseparable from the retroaction by which recollection receives its new signification from the fact that its expectations have found their effectuation in the present. The abyss separating recollection and retentional consciousness is filled with the web of their intentions, without which the difference between re-production and retention is abolished. (58)

Realization of expectations modifies both the past in its continuous givenness and the present's connection to it, inscribed in a new horizon of expectation as it constructs retroactivity. But this retroactivity drives the analysis of primary retention itself.

Primary-Secondary Unity of Lived Experience's Flux and Tertiary Having-Been of the Non-Lived

The spatial metaphor prevents Husserl from thinking a true sequence in which nothing would ever be completely detachable from anything else, having neither true head nor tail, beginning nor end, which would be truer to initial phenomenological intentionality, namely, emancipation of the transcendent identities of spatial worldly objects that actually begin and end. Obsessed by oppositions and questions of absolute beginnings and ends that constrain him to think *as if* retention could be infinite, and tempted to exclude the transcendence of *whats*, Husserl is incapable of freeing himself from an identity relationship with all perceptual objects, and is ineluctably caught within it. What results is a conception of mechanical flux in which the event has no place and expectation is never more than an "anticipation of perception" (58). This privileging of perception both allows the Husserlian mechanism to function and, excluding tertiary memory, limits any extension of the now. Tertiary memory is not part of flux, while primary and secondary are unified there—and flux is nothing other than this unification:

> What is not in question is a re-presentation by means of a resembling object, as in the case of conscious depiction (paintings, busts, and the like). In contrast to such image-consciousness, reproductions have the character of the representation of something itself. . . . Memory is the re-presentation of something itself in the sense of the past. The present memory is a phenomenon

> wholly analogous to perception. It has the appearance of the object in common with the corresponding perception, except that the appearance has a modified character, in consequence of which the object does not stand before me as present but as having been present. (Husserl 1991[1966], 61)

But Husserl could not integrate the phonogram and the cinematogram into his examples (busts, tableaux, etc.) since these are always precisely "images" and simultaneously transcendent temporal objects. Husserl simply could not account for the photo-graphic having-been qua that-has-been; he grounds the radical difference between secondary and tertiary memory in the perception of a having-been. The certitude, or the evidence, giving rise to this quasi-perception of objectivity beyond all lived experience, such as all photography, would necessarily interrupt it in his project.

The Dilemma of Phenomenology

In *The Problem of Genesis in Husserl's Philosophy*, Derrida shows that from the Husserlian meditation's first moments, the object has been to think genesis qua origin. Intentionality and intuition of a priori essences are not the same as "nontemporal logical significations." Rather, there must be intuition and "concrete completion" of these significations within the lived experience of consciousness. Beyond psychologism and logic, the challenge is to lay out a transcendental genetics. But Husserl endlessly finds himself caught needing to defer from any access to a constituting now qua originary temporality: all psycho-physical causality's necessary neutralization results in the inevitable transformation of all analysis of genesis into a static constitution calling for a new, more originary synthesis. Husserlian phenomenology's history is thus one of a dilemma whose five successive versions correspond to the following texts: 1. *Logical Investigations*; 2. *On the Phenomenology of the Consciousness of Internal Time*; 3. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*,; 4. *Experience and Judgement* and *Cartesian Meditations*; and 5. *The Crisis of European Sciences and Transcendental Phenomenology* and "The Origin of Geometry." But "The Origin of Geometry" is not simply included in this sequence, since it appears to be in crisis, through its references to a kind of "technological genesis," and through the role the document takes here, in combining the empirical and the transcendental.

And across these phenomenological "epochs," which differentiate, each in its own fashion, the resolution of the dilemma, Husserl brings about a broadening of the transcendental sphere, which in the end becomes the transcendental history of a We, in the course of which reduction becomes reactivation. The question of passive synthesis is the key to this movement.

The dilemma appearing along with the temporal object's phenomenological consideration, during the period of the *Phenomenology of the Consciousness of Internal Time*, opposed reduction (of objective time) to intentionality, prompting Husserl to rethink phenomenological reduction itself. This in turn gave rise to the reduction's being "placed in brackets without being negated nor put aside" (Derrida 2003 [1990], 69), thus re-directing *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy* away from eidetic reduction and toward transcendental reduction.

But *Ideas Pertaining to a Pure Phenomenology* only displaced the dilemma, since "after the reduction, there remains intact an ontological domain," that domain being consciousness, and "genesis is not neutralized but excluded as a domain of empirical facticity. We fall back to the phenomenological posing of the question" (74). This outcome is, however, only a passage toward the "originary domain" accessible only through a revision witnessing the appearance of a thematic of the *après-coup* that will give direction to the *Rückfrage* and to reactivation *The Origin of Geometry.*

The first step is to reduce the realm of consciousness, then to restore its constitutive nature. But as in *Consciousness of Internal Time*, an incompatibility immediately appears between the principle of principles (the immanence of "originary donor intuition") and the intentionality that "should make [the 'I'] originarily escape to the purity of its immanence to itself." In his Paragraph 57, Husserl defines the "I" as "a transcendence at the heart of immanence." Derrida comments:

> But what does he do here, other than describe the difficulty?-a difficulty of reconciling and unifying a transcendental thing purely lived, which would risk being nothing more than the totality of lived experiences and thus forcing us into an "empiricism," with a transcendental source which is not lived, which—while causing us to escape from a pure and simple empiricism, as cut off from lived experience—would run the risk of being only an empty

> and formal product, an objective unity, a constituted transcendence? (Derrida 2003 [1990], 84)

This "transcendence in immanence" reconnects with the principal difficulties of *Consciousness of Internal Time*. Paragraph 81 revisits the theme of a flux that "cannot begin nor end" ("Flux, one and infinite, is . . . , like the pure ego, a transcendence not constituted in immanence, a lived experience not to be confused with lived experiences and which remains distinct from any ideality" [Husserl 1980 (1950(, 165]). The ego is "time itself" qua monad accommodating "the other, originarily," a transcendental other. This is the emergence of transcendental intersubjectivity.

Still to be explored is the new domain of a "primordial synthesis" in which the distinction between empiricism and the transcendental effectively enters into crisis, since

> at the end of this "General Introduction to Pure Phenomenology," we see a reversal: . . . the passive synthesis of temporal *hylē* and, through this, of every *hylē* in general, seems to bring us to reconsider the distinction between the real (*real*) and the lived [*reell*]. . . . The empirical and the transcendental seem to resist any rigorous dissociation. A new phenomenological effort must try to find this again. (Derrida 2003 [1990], 100)

The Geo-metric *Epimētheia* of *Origin*

In *Experience and Judgement*, where "the transcendental subject which engenders itself is no longer a theoretical consciousness but an existence" (Derrida 2003 [1990], 104); the predicated genesis emerging from ante-predicative reality encounters the same dilemma, in the sense that since any judgment's categorical identity is related to an ante-predicative given, predictive categoricality must be "supra-temporal." Husserl's attempt to resolve this dilemma leads him to the themes of sedimentation, the *après-coup* reactivation of the ante-predicative given, and the world of life without logic. The *Cartesian Meditations* jointly introduce the teleological theme and passive synthesis. A shift between retention and protention constructs an intersubjective temporality in which "knowing that the eidetic moments are themselves constituted beforehand by a genesis, thus that they come second, that one relates to it as to an absolute beginning of a phenomenological revelation of genesis" (138). Consequently, active genesis becomes increasingly "superficial and secondary. It necessarily

presupposes its foundation in a passive genesis" (141). Now it is necessary to account for "the passive synthesis of the temporal and sensible *hylē* and through the originarity of transcendental intersubjectivity" (148), based on consciousness's objectivity, it appears that the "large now" implies expansion beyond egology—beyond lived experience. There is a passive genesis, "bereft of any intentional sense produced by the activity of the ego" that must be "originarily animated by some intentionality which transformed it . . . into a preactive and preconscious project of theoretical meaning" (154). But this is nothing but another of the dilemma's exacerbations, since here teleology saves phenomenology

> by contradicting it. This teleology could not by essence be given to a concrete subject in an originary clear evidence. To be faithful to its mission, it had to precede any active constitution and, in itself, any becoming conscious of the subject. . . . To make a supra-subjective, supra- or omnitemporal activity out of intentionality, is this not to deny all the preceding results of phenomenology? (153)

In *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, the confusion of the eidetic with the existential, the very idea of the European *eidos*, and the question of invention pointing toward inauguration and localization of the history of science, and of the transcendental We reproduces all of the aporias of passivity's activity's "dialectic" in displacing them toward the genesis of idea as the initiatory gesture. This is true either because there has never been such an initiation, a beginning, nor a Europe other than a falsely historical one, or because discernment of the empirical and the transcendental no longer has a place. Yet this thematic brings phenomenology back to a question of finitude, this time having become irreducible as the hypothesis of a "technological genesis." This is just what is developed in *The Origin of Geometry,* whose methodology is that of a "transcendental reduction; a reduction that no longer has a simply egological sense but that is practiced with the transcendental community" (162). And what this reduction cannot reduce, what does not appear to be false, is a technicity that is at once a sedimentation-traditionality as such, implying the aporetic structure of an *après-coup*: "traditional sedimentations must be reduced in order for us to be able to return to the originary foundation; but at the same time it is because there is sedimentation and tradition that this return is possible" (164), as if the phenomenality of

the phenomenon had only shown itself in a functionally interdependent *epimētheia* of *promētheia* that it will redouble, as the already-there, and as its *après-coup*. Since

> 'traditionality' as such is always defined by Husserl as an empirical phenomenon: it is, for example, the acquisition of the techniques through which the transmission and the inheritance of ideas become easier and easier. If Husserl does not show us how the genesis of this technique happens, one still knows that it is founded on the temporal continuity of every constitution. Every originary moment of a creating of sense presupposes a
>
> "tradition," that is to say, a being already constituted in facticity. (164–65)

The processes of idealization must be described, and "to return to the prescientific situation and to the production of originary idealities (*Urideal-itäten*) from the "prescientific data of the environment of life (*Lebensumwelt*)." (167).

Technological Différance

In 1953, Derrida offered a reading of *The Origin of Geometry* completely opposite to the one that would inaugurate Derridean philosophy in 1961. In the earlier piece, Derrida asserts that in *The Origin of Geometry* Husserl appears to abandon everything that from its first emergence phenomenology had wanted to preserve at all costs: "it is then, it seems, that the transcendental intentional analysis falls into a surprising interpretation whose poverty links in a way that is rather laughable all the inadequacies of an overbold explicative hypothesis, of a confused probabilism, and of a prephilosophical empiricism"(167).[10]

Derrida then cites the following passage from *The Origin of Geometry*, which is in fact extremely surprising in terms of the phenomenological itinerary: "In the first oral cooperation (*Zusammenarbeiten*) of the beginning geometers, the need was understandably lacking for an exact fixing of descriptions of prescientific primal material and of the ways in which, in relation to this material, geometrical idealities arose together with the first "axiomatic" propositions"[11] (167). This explication "closes us within the domain of a purely empirical facticity they wanted precisely 'to suspend.'" It is a technological explication. The possibility of an "exact determination of descriptions" is opened through this emergence's technologicality. Inscribing general technology within a transcendental

genesis, Husserl refers to techniques of polishing, sees the initial point of geometry's ideal possibility within an orthothetic to-come. Thus he engages in a radical reversal, and he knows it: "'the ruling dogma of the separation in principle between epistemological elucidation and historical, even humanistic-psychological explanation, . . . between epistemological and genetic origin, is fundamentally mistaken" (168). Later on, this will be a question of writing for Derrida—writing in the current sense, in which it will engage Derridean thought as archi-writing. However, the technological question posed by *The Origin of Geometry* is not limited to writing in the current sense, which leads to the question of what that signifies for the concept of archi-writing, and for the thoughts of the trace and of différance, since the genetics of originary idealities presupposes "a rigorous 'measurability' . . . born out of the world of spatiotemporal things," whose

> origin in human activity is purely technical; it is a "polishing" that gave us the pure idea of surface; out of lines and points that are "more or less pure" that geometric lines and points appeared. Again, the empirical, technical, and psychological act of "comparison" gave birth to identity. All the details of this curious analysis describe a purely technical genesis. (169)

The idea of a now-point, of absolute beginning, eliminating the question of temporal sequences and of history as delay constituting geometric time, is abandoned: "there must always already have been the fact of a history of geometry, so that the reduction can be performed. I must already have a naïve knowledge of geometry and not begin at its origin" (Derrida 1989a [1962], 38). Or else it would be necessary to assert that geometry's ideality, its unity, is a now, a unique large now that has been unfolding since ancient Greece. But then, in such a large now, such an expanded present, the essential documentary structure of science would become constitutive, and it would be necessary to expand all apprehension regarding temporal succession. Originary modifiability—presence—pro-cedes from the already-there (from secondary memories documented as the polishing and exactitude's general technological conquest), from a recurrence of completed, reactifiable retentions, being brought into play in *all* temporalization. The entire structure of heritage as it is addressed in *Phenomenology of the Consciousness of Internal Time*, which must be rethought retroactively out of *The Origin of Geometry*'s *après-coup*, and of *origin* as thought of the *après-coup*: of originary *default*.

The limited field of temporality is now expanded through a third kind of memory which opens the past to the future of an infinite task insofar as the egological sphere's retentional finitude broadens, as geometry's very possibility, to the infinitude of the transcendental community of "I." And this broadening, requiring documentarity (that is, the technical sedimentability that alone makes reactivatability possible, is all the more open to the imminent possibility of a destruction of sediments, and affected by its always-possible improbability. Science's and philosophy's processes of transmission have thus become

> analogous, if not identical, to that of internal time-consciousness. . . . The present appears neither as the rupture nor the effect of a past, but as the retention of a present past; i.e., as the retention of a retention, and so forth. Since the retentional power of living consciousness is finite, this consciousness preserves significations, values, and past acts as habitualities (*habitus*) and sediments. (57)

A certain privileging of anticipation results: the historical present "always refers more or less immediately to the totality of a past which inhabits it and which always appears under the general form of a *project*" (58). This anticipation is delay: "a primordial consciousness of delay can only have the pure form of anticipation" (153). If significations' conditions of appearance occur within their repetition's technological possibility, intuitional expansion and signification[12] are *given* by the now's constitutively technological broadening. Documentarity is originary, and language belongs to "documentarity" if it is true that "linguistic ideality is the milieu in which the ideal object settles as what is sedimented or deposited. But here the act of primordial depositing (*dokumentierung*) is not the recording of a private thing, but the production of a *common* object, i.e., of an object whose original owner is thus dispossessed" (78). Endless *egological* consciousness is impossible and, simultaneously, "after quick and transitory evidence, after a finite and passive retention vanishes, its sense meaning can be re-produced as the "same" in the act of recollection; its sense has not returned to nothingness" (85–86). Recollection has become the constitutive possibility of the very large now, the historic now, qua orthographic tertiary retentional now. But tertiary constitutivity exists even in the intimacy of egological consciousness, before teleologico-transcendental truth within the community of the geometric "I" has been accomplished, as *après-coup*: "before being the ideality of an identical object for other

subjects, sense is this ideality for other moments of the same subject. In a certain way, then, intersubjectivity is first the non-empirical relation of Ego to Ego, of my present present to other presents as such; i.e., as others and as presents (as past presents)" (86). The possibility of pulling tertiary memory out of extra-egological flux, of its overcoming factual interruptions, suspends the law of impressional consciousness. Retentional finitude can instantly be recognized as such and quasi-"awakened" (without being effaced). The default, having become *what it must*, opens a subjectless, transcendental epokhality:

> in connection with the general signification of the *epokhē*, Jean Hyppolite invokes the possibility of a "subjectless transcendental field," one in which "the conditions of subjectivity would appear, and where the subject would be constituted starting from the transcendental field." Writing, as the place of absolutely permanent ideal objectivities and therefore of absolute Objectivity, certainly constitutes such a transcendental field. And likewise, to be sure, transcendental subjectivity can be fully announced and appear on the basis of this field or its possibility. (88)

Epokhal *possibility* is *epimēthean* redoubling, delayed by an initial *prom¯etheia*, unknown and unconscious. Différance is techno-logic.

Freedom rests in the possibility of re-commencing and in repeating what constitutes the document and, more generally, the *what* as an enregistering support, repetition's *promētheia* producing *epimētheia*'s difference. To be freed from habitual practice is here to situate the trace outside, to put it outside of itself and *to be* put outside oneself along with it, while being provided the possibility of returning to oneself. This possibility of re-constitution, which could also mean synthesis, is essential to constitution proper.

What happens to re-constitution, however, and consequently to epochal doubled re-doubling, in the age of retentional finitude's industrial synthesis?

The Programming Industries' Temporal Objects

The chief consequence of the fact that ours is indeed an age of programming industries and of industrialized memory is that industrial memory's product is a flux in which absolutely unique temporal objects

appear, objects whose flux coincides with the flux of the consciousnesses it produces.

The programming industries,[13] and more specifically the mediatic industry of radio-televisual information, mass-produce temporal objects heard or seen simultaneously by millions, and sometimes by tens, hundreds, even thousands of millions of "consciousnesses":[14] this massive temporal co-incidence orders the event's new structure, to which new forms of consciousness and collective unconsciousness correspond.

Husserl's great merit is to have discovered the concepts of primary retention and longitudinal intentionality. But since he cannot think the temporal industrial object, since he excludes objectively synthesized memory from consciousness's constitutive flux, he then finds it impossible to think about the industrial age without appealing to those works affecting all sectors of industrialized memory in which the sequential articulates an event-ness, which can act as the "mouse-event"[15] activating a graphic interface in an operating system (a computer is a clock), or it can be the event as appearance of a new being created by the molecular sequencing and gene therapies injecting the law of the non-living into the living, and thus even into the very Lived Present out of which Husserl attempts to think time.

Through their reception's simultaneity and universality, temporal industrial objects tend to suspend all contextuality. Memory's industrialization achieves a generalized decontextualization. Decontextualization of the written has allowed for interpretations' intensification to the extent that orthographic writing has been re-contextualized within a unique already-there, which has re-constituted its singularity within the admixture of local rhythms. The temporal industrial object is, on the contrary, the reification of a quasi-integrally de-localized rhythmics emerging, through telecommunications networks, from an anonymous elsewhere, a satellite with neither here nor now: the occultation of différance is the indifférance of a non-place ("no future" does not mean "nothing *happens* anymore").

We saw in Chapter 3 that the "current event," transmitted live, is an immediate past making the present pass by, thus constituting an already-there. If the criteria of primary retention within the now of a temporal object qua selection are already opened by prior temporalizations that have become secondary memories within the industrial synthesis of retentional finitude, this selectivity is short-circuited by the immediacy of

tertiary retentions, which, because of the configuration of the temporal ecstasy proper to analogico-numeric syntheses, co-incide with primary and secondary retentions. Thus Raymond Queneau could say that television is current events that have frozen into history. How is it then possible to distinguish, in the temporal objects that *are* current events, between primary memory—the "just-having-been"—and image-consciousness, since what happens happens im-mediately through image-consciousness? The lived experience of these events is a temporal object that is irreducibly an image-consciousness, while the present tends only to be presented as temporal object (listening to radio, watching television).

This is image-consciousness—as mundane, worldly representation, and as the object of manipulation, of the "production team"'s "live" footage, of "productions" by "producers" staging events I have not lived, "presented" by "presenters" who have not lived them either.

And this is not image-consciousness, since it is the collective present of a consciousness of the "we," in which the "just-having-been," as im-mediate passing that is immediately past, is discovered as already constituted as such—as the already-there—with all the force of the already-there, *my* already-there, that I have not lived while yet having lived it as some kind of "supplement," such that the already-there of "*we others*" is, however, not properly ours. If a distinction between primary and tertiary memories remains possible—and even indispensable (without creating a simple opposition), here it has nonetheless become absolutely formal and empty.

When in the previous chapter I claimed that event-ization, as the temporal object to-come of everything that happens, conceals time's différance, I might have expressed this in Ricœur's terms by talking about the impossibility of re-figuring time's configuration (Ricœur 1983-85, 3: 259–65). But Husserl's inability to understand the "cosmic connectors" (154–83) that Ricœur highlights calls out for an analysis of technological connectors that shape the cosmic and endlessly (re)configure it, subject to and of refigurations in what I shall call the second coup of the double epokhal redoubling.

The fundamental concept in this second *coup* is the *idiotext*: a memory-flux always already constituted through reconstitutivity's imposing its retentional finitude on it.

The idiotext attempts to think *place*, the (re)constitution of place, and giving-place as such: the opening of a spatiality in the event's temporal having-place. This effort "has place" within the "context" of what I have

characterized as decontextualization. I have tried here to bring together elements of genetics and a genealogy of disorientation, presented as the "proper" of our age, though always already announced in the default of origin. And I asked at the end of Chapter 3 if and how a re-constitution of communities (within the default of community qua community of default) was possible within decontextualization.

This idio-textual effort's intention has been to excavate the question energetically and dynamically, revisiting Husserl, Bergson, and Heidegger, thus once again posing the question Husserl must be asked: *where* are the *eidē*?

Husserl represents the temporal object's consciousness of flux using a diagram at which we have had a close look..

Bergson imagines perception and memory's articulation as conical.

The temporal object is a *vortex* within a flux—that is, a spiral.

All "consciousness" is itself temporal and consequently awhirl; the vortices by which events are formed appear within this whirling flux of "consciousness." This is precisely the idiotext's structure: a whirling flux in which vortices take place. But the idiotext is itself caught up in a whirling flux that is *already-there*, prosthetically supported and synthesized and more broadly, that should not be called "intersubjectivity" but, as we learned from Simondon, *transindividuation.*

Notes

Introduction

1. In general, I have throughout translated *Occident* and *Orient* by "Occident" and "Orient," only occasionally opting for "West/Western" and "East/Eastern." This is for several reasons. First, given the volume's subtitle, Stiegler's (serious) play with these terms is a constant echo of *disorientation*, in the various senses of the word. I have chosen to maintain this echo, except where the more casual "West" or "East" seems more appropriate to the immediate meaning. Second, I have wanted to maintain, as Stiegler does, the latinate echo of *occidens* and *oriens*, "the direction in which the sun sets/rises," as cardinality, instead of losing this entirely. The fact that "Occident" occasionally seems slightly foreign or formal is either a price one must be willing to pay or else a third advantage.—Trans.

2. Gilbert Simondon, *L'Individuation psychique et collective: À la lumière des notions de forme, information, potentiel et métastabilité* (Paris: Aubier, 1989), 24–30.

3. Sam Weber, in his *Theatricality as Medium* (New York: Fordham University Press, 2004), explores this *other* in the wake of 9/11 in his final chapter, "'War,' 'Terrorism,' and 'Spectacle': On Towers and Caves."—Trans.

4. And inorganic matter organized is precisely what defines the technical object.

5. That *Being and Time* remains within metaphysics is simply a consequence of the forgetting, within thanatological existentialism, of the Titan of delayed action, Epimetheus, the instigator of the originary default-of-origin and the god of forgetting (who forgot to give "qualities" to mortals), whose error is corrected by his brother, Prometheus, in stealing technical powers for Hephaestos and Athena, substituting this prosthesis for the *retentional finitude* of mortals: their

defect of memory (which is to say, additionally, of their essence), the heritage of Epimetheus's omission.

6. Friedrich Nietzsche, *On the Genealogy of Morals,* ed. and trans. Walter Kaufmann (New York: Vintage Books, 1989), 94.This citation, with its reference to *faute* as *"guilt"* casts an entirely new light on Stiegler's fundamental notion of *faute* and *défaute*; both of these must be reconsidered in light of this new sense of *guilt*.—Trans.

7. These lines had already been written when I discovered and read Jacques Derrida's essays "Avances" (1995) and "Foi et savoir" (1998 [1996]). *La désorientation,* the second volume of *La technique et le temps*, the original of the present book, was already in press; it was too late to include the impression these texts made on me. I should say, however, that the clarifications I attempt to work through here on the questions of fault and speed, following on from volume 1, *The Fault of Epimetheus*, were defined for me by what Derrida said to me on the day I defended my dissertation, and through conversations with Richard Beardsworth, Howard Caygill, and George Collins. The pervasive monotheistic question of religion and of belief traverses that of disorientation: I have sketched out the methodological framework of this same motif in "The Belief of Régis Debray," in *Le Débat,* no. 85 (Gallimard).

Chapter 1

1. In its frequent use throughout the text, *support(s)* has a number of meanings, ranging from the literal "support," to "medium," "aid," "ground," and beyond. In general, in addition to the straightforward "support," I have employed either "ground(s)" or "medium/media" when the context points to "background" or "base" for art or technology. In this chapter, the relationship between the past object and its presencing in the photographic (spectral) image is, for Stiegler, not a question of being or becoming aware of a mediation, a passage, but of a passing, a lamination of layers of unmediated times: that of the "dead" past and the spectral present of the spectator's viewing of the photograph.—Trans.

2. Throughout this section, Stiegler plays with the layerings of *objectif* ("lens" and "objective") and *objective* ("objective"). Since the point being made has to do with the conundrum of the making-spectral of the luminated object "by" the lens, the *objectif*, and its technical system, it is worth keeping this connection behind the scenes in mind.—Trans.

3. The use of *spectrum* here plays on the ghostly nature of the living/dead nature of the photographic image and the fact that it is produced, through chemical reaction, from the light spectrum. The point is that the photographic image is not *just* an image but a *spectral* image.—Trans.

4. The distinction pointed at here is between the "photo*graph*," "writing with

light," and "photo*gram*," "some*thing* having been written down with light." Stiegler emphasizes the reification of the photograph, as photo*gram*, rather than its more abstract (and usual) form. Here it is not a question of conceptualization but of someone's actually looking at someone—at "oneself," captured in and spectrally emerging from, the dead past.—Trans.

5. The aorist is one of the past tenses of ancient Greek verbs, indicating a past action but without indicating where it is located in time, i.e., whether it is finished, continuing, or repeated; it is a past tense that is past but always indefinite.—Trans.

6. The adherence of Barthes and Stiegler to "catastrophe," in the context of the photo-graphic "break," echoes the sense in which it is used in Greek tragedy: *kata-strophe* as the downturn of the action, the "break" or reversal by which the temporal dimension of the *logos* is revealed.—Trans.

7. This short section is an orchestration of various forms of the many-faceted *droit(e)*, in all its permutations. Stiegler's play with *droit* and *gauche*, for example, as straight or straightforward ("right") and "skewed," as in the mathematical sense of *gauche*, or more familiarly "mettre de l'argent à gauche," to put money aside, permutes into further play with *droiture* and then with *la droit*, a right. All of this stems from "*ortho*, Greek for "straight." Most of Stiegler's play has been lost in translation, though I have tried to maintain what of it would not interfere with making his point.—Trans.

8. The multiple valences of Mallarmé's line from *Divagations* echo in the phrase Stiegler quotes here. It is worth citing the entire short passage from which the line comes:

@next:Je dis: une fleur! Et, hors de l'oubli où ma voix relègue aucun contour, en tant que quelque chose d'autre que les calice sus, musicalement se lève, idée même et suave, l'absente de tous bouquet.

(I say: a flower! And, out of the lapse of memory to which my voice relegates any contour, as something other than the familiar chalices, musically rises up, idea self-same and clear, the absent (one) of any bouquet.(

While the passage is usually held to be an example of Mallarmé's vision of a Hegelian transcendent unity, Stiegler finds a very different dynamic in the line: "l'absente," the absent (one), is the invisible presence, at once spectral and dynamic but "absent," that Stiegler has been exploring in Fellini's *Intervista*.—Trans.

9. Stiegler's word here, *tain*, in French, indicates not just a mirror's silvering (its reflective surface), i.e., something physical and thus in terms of optics as well as phenomenology, technical, but also its medium (what Artaud refers to as the "subjectile"). As Artaud shows (developed by Derrida in "Forcener le subjectile"), this ground is at once the basis of (self-reflection and also the rigidity of death. Whereas for Artaud, the tain must be disrupted, penetrated, broken, for Stiegler,

it is the emblem of and impetus for disorientation. Stiegler makes this direct connection to the subjectile in the following section of the chapter.—Trans.

10. "Relating to or designating the Socratic process, or other similar method, of assisting a person to become fully conscious of ideas previously latent in the mind" (*Oxford English Dictionary*).

11. For a further discussion of this point, see *Technics and Time,* vol. 1: *The Fault of Epimetheus.*

12. Stiegler's original: "Il n'y a que des mémoires gauches, surtout lorsqu'elles sont droites."—Trans.

13. "Neoteny" is retention by the adult of a species of traits previously seen only in juveniles (pedomorphosis), the effect of which is the delay of physiological development, and whose eventual result is the retention of juvenile physical characteristics well into maturity.—Trans.

14. The designation of the *who?* as opposed to the *who* plays an important role in Chapter 1. When the question mark is italicized, it should be read as an (interrogative) aspect of the *who.*—Trans.

15. The distinction Stiegler is making with *littérale* here, the "literate" as opposed to the "oral," is in danger of being lost in the various meanings of "literal" in English, several others of which are also frequently employed, and the most frequently used of which does not express what Stiegler is getting at. It is important to remember that "literal" here means reading and writing as opposed to the oral. Where this distinction might be lost or ambiguous, I have sometimes resorted to "literal/literate."—Trans.

16. See the concluding sections of volume 1 of *Technics and Time*, in which Stiegler introduces tertiary memory in a Heideggerian context.—Trans.

17. Once again, Stiegler is *at play* with orientation (and the Occidental): "Plus la mémoire est droite (identique), plus elle est gauche (plus elle diffère)."—Trans.

18. J. G. Février, *Histoire de l'écriture* (Paris: Payot, 2006).

19. Stiegler: "Elle est la réactivation la reprise en évidence originaire."—Trans.

120. On the question of speed, see the concluding section of the Introduction above.

21. The use of *idiotic* here refers to its Greek sense of "one without professional knowledge, ignorant, ill-informed": "*Epimētheia* constitutes this carelessness, this primordial idiocy, source of finite singularity and freedom, as a result of which it is possible to act and possible for something to occur, to take place" (*The Fault of Epimetheus,* 199).

22. Of which an outline appears in "What is Missing (Ce qui fait défaut(," *Césure,* no. 8 (Autumn 1995).

Chapter 2

1. This is why Jean-Luc Marion manages to rediscover the *ego* in *Dasein*; see Marion 1998 [1989].

2. See the extensive commentary in *The Fault of Epimetheus.*

3. Biface: a type of prehistoric stone implement flaked on both faces.—Trans.

4. *Délocalization* is used in French not just to indicate a removal from the familiarity of the "local"; it also means "to outsource": jobs going to China or Bangladesh are *délocalisé.*—Trans.

5. The English translation of *indescriptible*, "indescribable," misses the buried "script" of the French, once again calling attention to the written/spoken distinction. Since "in-descriptible," as a neologism, is impossibly clumsy here, the standard translation has been maintained.—Trans.

6. "By the same token, the time read on a clock relates time to the spatial dimension of the clock's hands. If it is possible to speak of time in ethnologic terms, it is through simple abstraction, as of one of the two poles of rhythm."

7. "An increasingly restricted minority will control, not only essential political, administrative, and technical programs, but also emotional rations, epic escapes, the image of a life that has become completely figurative since a purely figured social life can be substituted without a blow for real social life. . . . Already today, the emotional ration is constructed through carefully composed ethnographic montages on dead beings: the Sioux, cannibals, pirates and freebooters, who created the framework for poor and arbitrary relational systems. One could ask what the level of reality of these summarily embalmed images will be when their creators leave behind four generations of parents teleguided in their audiovisual contacts with a fictive world" (Leroi-Gourhan 1975, 2: 203).

Chapter 3

1. The French term *informatique* originally referred strictly to the computer; by the end of the 1990s it came to mean something more general: the virtualizing of information by—but also beyond—the computer; therefore, I have chosen to translate *l'informatique* as "informatics" rather than "computers" or even "computer science." On the other hand, when Nora and Minc's *L'Informatisation de la société* (1978) was translated into English, the title chosen was *The Computerization of Society* (1981). As a result, though the Nora-Minc text of course retains its published title here, *informatisation* is translated as "informatization" rather than "computerization." Part of the reason for this is that we are now far less willing to be either threatened by the computer (Simondon's thesis) or "positively cynical" about it (Nora and Minc's thesis); and "informatics" is now

an established multi-platformed world of information processing, transfer, and creation.—Trans.

2. Nora and Minc 1981 [1978].

3. A signal is called *analogic* when its form is proportionally analogous to what is broadcast, and *numeric* when, as code, it bears no isomorphic relation to what is encoded.

4. "Telegraph" has been placed in quotes because the word is used here in its most fundamental sense: the Chappe system was hardly electronic, or even close to it.

In 1790, needing a faster communications structure, Claude Chappe and his brothers, picking up on a suggestion made a century before by Robert Hooke, invented a (symbolic, i.e., visual) communications system using black and white panels, clocks, telescopes, and codebooks, which allowed the government in Paris to receive intelligence and to transmit orders in the shortest possible time. In 1792, Claude Chappe was appointed *ingénieur-télégraphiste* (the first such title) and established stations between Paris and Lille (230 kilometres;143 miles). Chappe eventually established a network of 556 stations throughout France, which was used for military and national communications until the 1850s.—Trans.

5. "The pessimists emphasize the risks involved—rising unemployment, social rigidity, the vulgarization of life. . . . On the other hand, the optimists believe that miracles are within reach, that computerization means information, information means culture, and culture means emancipation and democracy" (Nora and Minc 1981 [1978], 10).

6. "The future can no longer be determined by prediction, but rather through planning and the capacity of each country to organize itself in order to achieve it" (ibid., 12).

7. The cliché is the result of a process invented by Havas to sell ready-to-publish articles.

8. "—Laurel?—Yeah?—Where have you put the paper?—In its proper place . . . —Where's that?—In the refrigerator . . . —And why in the refrigerator?—To keep the news fresh . . . "

9. The original of this book, *La désorientation,* volume 2 of *La technique et le temps*, was published in 1996, after the Reagan era but before the Bush era, and long before the events of September 11, 2001, in New York and Washington, D.C. (though Stiegler's argument finds a quintessential exemplar in them), and long before the American attempt at remaking the world, through the war in Iraq, with its "embedded" journalists, the global "war on terror," and "homeland security." The (covered) events of recent years are all clearly primary-colored manifestations of the industrialization Stiegler discusses in this section and throughout the volume, though it might be argued that the central theme of *im-*

mediacy (i.e., temporality) has been supplanted even further, in the past decade by manipulation (i.e., selection and control).

Stiegler has, in numerous subsequent works, focused on the event-ization and the impact(s) of *both* American (and now, under Sarkozy, French) neoconservatism *and* the military adventurism (direct and indirect) it has produced and/or enhanced. See particularly *Mécréance et discrédit* (2004).—Trans.

10. In 1869, Jean-Baptiste Troppman met Jean Kinck and ostensibly offered to teach him counterfeiting. En route to the site of their plant, Troppman killed Kinck, then wired Kinck's wife for money. Mrs. Kinck, believing Troppman was acting for her husband, sent one of her sons with a check. Once Troppman received it, no longer needing the boy, he hacked him into to death. Unable to cash the check, however, Troppman arranged to meet Kinck's wife in Paris. There, Mme Kinck gave him a significant amount of money (55,000 francs), thinking they were for her husband. Once he had the money, Troppman killed Mme Kinck and her remaining five children.

The next day the bloodbath was discovered; Troppman was quickly arrested, and more charges were added when the trail led to the two other bodies. After a sensational trial, Troppman was found guilty and sentenced to death for the eight killings. On January 19, 1870, at the age of 22, Troppman was guillotined.

As Stiegler suggests, the "Troppman affair," including but not limited to the trial and subsequent execution (i.e., all luridly sensational details of Troppman's very lurid actions were made into daily—illustrated—theater), was covered in minute detail by the Paris—indeed the *world's*—tabloid press, day by day, word by word (within a year of the Commune, no less), with illustrations.—Trans.

11. I explored these themes in the exhibition entitled *Mémoires du futur* at the Pompidou Center in 1987.

12. Édouard Belin (1876–1963) constructed the first belinograph in France in 1925. An image is placed on a cylinder and scanned with a powerful light beam. An adjacent photoelectric cell then converts gradations in the reflected light into transmittable electrical impulses. The "belinograph process" is the basic principle used in all subsequent facsimile machines, to the present day.—Trans.

13. In the previous paragraph, Stiegler plays constantly on the notion of *a lieu*, "takes place," and *ce qui arrive*, "what happens," only a very small part of which can be translated into English. The paragraph's conclusion plays on *arrive* as "happen" to indicate that those non-events not "covered," as it were, *will thus not have arrived* "at their anonymous and improbably destinations [ne seront donc pas arrivés—à leurs anonymes et improbables destinaires]." I have been forced to let the first half of this play go, but have tried, rather circuitously, to keep the second.—Trans.

14. This is what Stephen Colbert calls "truthiness."—Trans.

15. "The historical narrative appears at the same time as historical acts and events, in their true sense" (Hegel, *Reason in History*).

16. Stiegler's word here, *rétro-visant*, aims at both a re-seeing and a re-vising by the historian; the double meaning of "vision" is buried—but lost—in English. It is important to keep both *differ* and *defer* in mind in thinking "differed" (*différé*) time, the spatiotemporality of différance.—Trans.

17. Heidegger was also impressed by Telstar, the first communications satellite that "served as a relay for a direct transatlantic link for the exchange of television programs" (Heidegger 1990c [1989]).

18. I cannot here go into the important question of a historical science that would not be of the order of the narrative, in which the concepts of *chronology, chronography*, and *chronosophy* have been suggested by Krzysztof Pomian.

19. This thematic was also a train of thought, or the sketch of one, in Walter Benjamin's work.

20. "With the *interfacing* of monitors and control screens, elsewhere begins here and vice versa" (Virilio 1984, 13).

21. "Transparency has long succeeded appearance, classical depth of field having been displaced since the beginning of the twentieth century by technical advances' depth of time. The rise of the cinema and aeronautics has forgotten the grand boulevards' perspectival distances. Haussmann having been succeeded by the Lumière brothers, the spatial expanses of Les Invalides by the occlusion of the city plan, the screen has quickly become the locus of media culture." (Virilio 1984, 28).

22. The *peau de chagrin* is a magical or talismanic piece of animal skin, usually that of an onager, or "wild ass," which has the power to grant wishes but shrinks slightly with each use; the wisher must die when it disappears. In Balzac's version of the tale, the central character quickly realizes that he must attempt to *wish for nothing*, since every wish will be fulfilled, thus hastening his death. The phrase's (and the title's) multiple plays on words involve the animal skin, the *peau* (the talisman), and *chagrin*, grief. Stiegler's multilayered use of the term here alludes to the notion of the finite shrinkage of a real (though magical, unreal) object, the play with "profundity" and shallowness or "skin," and the dangers of anomie and alienation (and the grief) to which they can lead in a disoriented culture.—Trans.

23. Cf. Gille Deleuze (1994 (1968(), 36–37. Clearly, however, I have not followed Deleuze when he—quite classically—opposes *exactitude* and *authenticity*.

24. It is nonetheless necessary to specify that real time is nothing more than time infinitesimally differed, at such a speed that this differentiation remains below the threshold of perception.

25. Think, too, of several generations of photonic devices in the forms of digi-

tal and numeric cameras and their relations, including cell-phone cameras.—Trans.

26. Photonic technology that simultaneously and in the same device saves images, sounds, and text in binary form, analogic and literal technologies are entirely reintegrated through numeric technology—and that in turn introduces real-time processing of text, images, and sounds.

27. A great deal of French literature is accessible on the CNRS's CYRIL server. This database of 500,000 pages is also available on CD-ROM. The *Thesaurus Linguae Graecae* [www.tlg.uci.edu (accessed April 8, 2008)] provides access to all of ancient Greek literature (the compilation of many centuries of textual production), and will be followed by an exhaustive collection of Latin texts. Parts of the print press's archive, and (already) of radiophonic and televised journalism, has become available in this form.

28. Consequently, forgetting must be organized: an entire economy of selective access, of hierarchization, and of regulation of the conditions of production of the present and the past must be invented, acknowledging technical problems (such as the reduplication of recordings within these new standards), and then economic ones, but also the ethical, juridical, and political.

29. See *The Fault of Epimetheus,* 239–45.

30. "That 'the imprint' is irreducible means also that speech is originarily passive, but in a sense of passivity that all intramundane metaphors could only betray. This passivity is also the relationship to a past, to an always-already-there that no reactivation of the origin could fully master and bring to presence. This impossibility of re-animating absolutely the manifest evidence of an originary presence refers us therefore to an absolute past. This is what authorized us to call *trace* that which does not let itself be summed up in the simplicity of a present" (Derrida 1976 (1967(, 66).

31. Stiegler here alludes to the important phenomenological, and ontological, aspect of différance: the fact that it is fundamentally *experiential*. This is precisely where Stiegler passes beyond Derridean deconstruction, even in its earlier, edgier phases.—Trans.

32. *Libération*, following the slaughter in Ouvéa [a small island commune, part of the Loyalty Islands Province of New Caledonia, a Pacific Ocean territory of France. In an April 1988 uprising, four gendarmes were killed and twenty-seven taken hostage and held in a cave by supporters of the FLNKS (Kanak Socialist National Liberation Front). Twelve of the twenty-seven gendarmes were later rescued, but during the operation six French anti-terrorist squad-members were taken hostage. Negotiations for their release were unsuccessful, and security forces laid siege to the cave. In the bloody battle that followed, eighteen Kanak Front members and two gendarmes were killed. A subsequent investigation al-

leged that after the siege, three Kanaks had been summarily executed or left to die. The event was widely covered in the French press.—Trans.].

33. Stiegler's word here, and throughout this section, is *fonds*; in addition to providing a "ground," the multiple meaning includes two other sense of the word: "funds" and "capital." Thus the use of *fonds* links the development of the literary patrimony (as memory), and its very preservation, to the development of capital and the concept of "saving" just discussed.—Trans.

34. "Car méditer, sans traces, devient évanscent."

35. The multiple applications of *faire* in this section, titled "La synthèse biologique: Quand faire c'est dire" in the original, require multiple translations. The more general "to do" is often displaced by the more limited-and more appropriate to "industrialization," as Stiegler uses it-"to make"; both are used here depending on the context. When the question is one of invention through language, "do" will not do, and elsewhere, the less formal translation is clearly indicated. As is frequently the case in this book, the play between various meanings is the point. The assumption should be made that when "do" or "make" are encountered, *faire* is lying behind them.—Trans.

36. See Derrida's *Shibboleth for Paul Celan* (Derrida 1994a (1986().

37. And this technical question of idiom, of idiomatic and ethnic difference is a political question that has motivated Derrida from the beginning—starting with *Husserl's Introduction to Geometry*: "One has . . . when one wishes to assume and *interiorize* a culture's memory, a kind of *Erinnerung* (in the Hegelian sense), the choice between two things. One . . . [returns] to the poetic value of passivity. . . . The other pole is Husserl's" (Derrida 1989a (1962(, 104–5). At the time of the *Introduction*, [for Derrida], it was a matter of writing, of technics, and thus of the initiation of something integral: that of the/a living present, a technological starting point rightly announcing the idiom's irreducibility, precisely where Heidegger seems to opposes (very "classically"), idiom and technics. Idiom is irreducible *because* technics is irreducible. Can we see only *today* that the political is the idiomatic, and that, *today*, it addresses judgment as a politics of technics? This is also a question, in *Shibboleth for Paul Celan*, of dateability, of the already-there of the date in its absolute facticity, which is also absolute necessity (incessance). A date is structured as an idiom: simultaneously that which cannot be repeated and that which is nothing but repetition: the date that "effaces itself in its very readability, . . . conceals within itself some mark [*stigmate*] of singularity in order to last longer." It is a question of persisting in this *simultaneity* as the collusion between the idiom and what denies it; as a task of memory, of "support for a number that is by definition not limited to the projections of memory."

38. The *world-thesis* is a vital part of Husserl's phenomenological reduction: the world is *there*, and I have a natural faith in it. I place myself in the world confidently. But the world-*thesis* implies "thesis" in the Hegelian sense: as an

interrogation leading to an anti-thesis (a second moment). Yet in Husserl's philosophy, world is never put in question, never in doubt as it is for Descartes, for whom doubt as anti-thesis can imply world-destruction. Since whatever I do the world is still there, this interrogative/negative must be overcome. This for Husserl is the advent of *epokhē*, the phenomenological reduction. *Epokhē* is "parenthetical," suspended. Within the context of my natural faith in the world—"I am, I think, and I have a world before me"—any element of doubt (the inherent question of the world-thesis qua *thesis*) is simply suspended. This reduction means that the world can be or not be; since the *epokhē* comes *before negation* it is therefore more profound than the world-thesis.—Trans.

39. "If I attribute *place* to myself, this is also the place of my body" (Husserl [emphasis his] 2001a (1972(, 61).

40. There is hardly any need to go into the complexities and layers of *esprit*, since the following section deals precisely with the relationship (or divergence) between "mind" and "spirit"; Minsky has clearly been talking about "mind," but when we reach Derrida's treatment of Heidegger (as in *Of Spirit*), the play of *Geist*, *esprit*, and mind/spirit becomes much more complex. This will be, precisely, Stiegler's point regarding language—particularly Heidegger's (and Husserl's) ambiguities.—Trans.

41. One of the most important steps toward modern computing, the Babbage machine or "analytical engine" was first conceived and described in 1837 by Charles Babbage, a British mathematician; Babbage continued to work on the design until his death in 1871.

The machine was to be (Babbage never completed it) steam-powered and would have been over 30 meters long and 10 meters wide. The "input" (programs and data) consisted of punch cards, then being used in Jacquard looms. "Output" was to be provided by a printout, also on cards, and a curve plotter. Parts of the machine and materials describing it were discovered by Howard Aiken in the 1930s at Harvard and inspired Aiken's "Harvard Mark I" in the 1940s.—Trans.

42. This theoretical neutrality of speed (and of the medium itself) is, however, open to question in other contexts. See, e.g., Henri Atlan: "The fact of radically changing the order of magnitude of the timescale of calculation capacity is not a trivial factor in the study of a system since it affects the classical relation of opposition between determinism and novelty" (Atlan 1983, 117).

43. See Erceau and Faber 1992.

44. On the other hand, it is clear that processes of the transmission of experience and "acculturation" occurs in colonies of large monkeys, and it seems more and more obvious that the process I am calling *epiphylogenesis* here originated well before the advent of the human—which confirms that the issue is not that of "the human" but of the process of which it serves as the transmitter.

45. The lack of attention paid to Vygotsky's and Luria's work in this area is astonishing.

46. In fact, it is the question of the *human* qua invention, or, as Blanchot says, of (the) work. The first human's tool is already and essentially memory: the memory of human gestures—bequeathed to others beyond any individual life. Thus, to go beyond a single life (animal memory) is to enter into death, and only in this way is one dead, for the first time. This is why (because he thinks [the] work [*l'œuvre*] and writing *as labor* [*travail*]) Blanchot can write in *La bête de Lascaux* [Blanchot 1982] that the impersonal knowledge of life "is linked to the development of technics in all its forms."

47. Allen Newell (1927-92) worked in cognitive psychology and computer science, first at the RAND corporation and then at Carnegie Mellon University. With Herbert Simon, he received the 1975 Turing Award for contributions to artificial intelligence and the psychology of human cognition. Newell believed that information processing is the central activity in organizations. In the early 1950s, Newell came to believe in the creation of intelligent systems with the ability to adapt. In 1955, he published *The Chess Machine: An Example of Dealing with a Complex Task by Adaptation*, which "outlined an imaginative design for a computer program to play chess in humanoid fashion." He later developed "Soar" cognitive architecture, a unified theory of cognition. Newell is best known for the creation of two theories: A Model for Organization Theory, and Formulating Precise Concepts in Organization Theory.—Trans.

48. Jean-Michel Salanskis and Véronique Havelange also engaged in this field of promising work.

49. And in Bruno Bachimont's remarkable doctoral thesis, "Philosophie de l'artifacture."

50. Heidegger's *Überlieferte Sprache und technische Sprache* has been translated into French but not yet into English.—Trans.

51. "At present we speak of the relationship between natural science and technics as of a 'reciprocal propping-up'" (Heisenberg). . . . *Technics is co-determinant in knowledge*" (Heidegger 1990c [1989], 24–25; emphasis added).

52. "Language is not a simple instrument of exchange and communication. Yet it is precisely this current conception of language that can be seen not just revived through the domination of modern technics, but reinforced and pushed to extremes. It is reduced to a proposition: language is information" (Heidegger 1990c [1989], 35).

53. "Let us consider Morse Code, which is limited to dot and dash, and whose numbers and order are connected to the sounds of spoken language. . . . In order for a kind of information like that to become possible, each sign must be defined in a univocal way: and each group of signs must signify, in a univocal way, a definite statement. The unique nature of the language of information is the abstract

form of writing, which is transcribed into the formulae of a logical algebra. The univocity of signs and formulae necessary to this fact assures the possibility of a certain and rapid communication" (Heidegger 1990c [1989], 37–39).

54. Such as certain televised and web-site networks for ordering from bookstores, etc., and for editorials and opinion pieces [as well as blogs] from daily newspapers, weeklies, and reviews.

55. This kind of demonization always creates a devil without also eliminating money's logic.

56. The term *éliciter* is used by [French] cognitive scientists. *Élicitation*, which transforms a rule from the status of *know-how* to that of *know-what*, is a "dynamic in which the simple description of a system changes it. An observer is perpetually connected to the system by an understanding of it that modifies his relation to the system" (Varela 1989, 88).

57. This mnemo-industrial complex also supports the supply and demand aspect of molecules and organs as primary matter (1) of bio-technological agriculture's rational exploitation of the inherited traits of the animal and vegetal world, and especially the tropical, which creates new ancestral links between North and South (see M. A. Hermitte, *Le Monde diplomatique*, April 1992), and (2) of a surgical medicine as concerned with prevention as it is with the repairing of the body through the donation, sale, or "recovery," then standard attachment of body parts, certain among them (most notably infants') being chronically lacking, and supply greatly inferior to demand, creating extensive organ-trafficking from South to North, overshadowed by sophisticated criminal-technological networks (see M. Piniero, "Enlèvements d'enfants et trafics d'organes," *Le Monde diplomatique*). In this realm, if there is not, strictly speaking, the inscription of information via various data entry methods (as occurs in the analogic and numeric), but rather a removal or extraction as a result of gift, purchase, sale, or *capture* and then surgical intervention or genetic manipulation, nonetheless preservation, processing, and transmission go on in the life-process after transplantation *and* the grafting of a bloc of memory.

Chapter 4

1. Husserl, *Logical Investigation* 5, § 10, "Acts as Lived 'Intentionals.'" In the standard English translation (Husserl 2001), "Descriptive characterization of acts as 'intentional' experiences.'" Clearly, in this section, the "standard" English translations from the German (J .N. Findlay's) are quite different from Stiegler's French translations. I have tried to compromise among the three Husserls, with Stiegler's "intent" in mind.—Trans.

2. Derrida 1994b (1994(, p. 189, n. 6, reopens this question.

3. The term *livisibilisant* [reading/visualizing/intending] is Michel Servière's.

4. " When a new sound rings out, the preceding one will not have disappeared without leaving a trace, without which we would not be able to discern the relations between sounds that one another: we would have, at each moment, only a single sound, eventually in the period of time between the tinkling of two sounds, an empty phrase, but never the representation of a melody. On the other hand, it cannot be a matter of retaining the representations of sounds in consciousness. If they were to remain there in effect without modification, we would have, in place of a melody, a chord made up of simultaneous sounds, or rather a cacophony such as we would get if all the sounds that had already appeared, over however long a period, rang out at once. It is solely because this specific modification intervenes that each sensation of sound, after the disappearance of the excitation that has generated it, awakens within itself a similar representation providing a temporal determination, and because this temporal modification is continually transformed, we have the representation of a melody, in which individual sounds each have their determined place and their determined temporal measure" (Husserl 1991 [1966], 19).

5. In the "Augustinian poem," echoing Augustine's double life first of the flesh and then of the soul, all the earthly elements are "in play"-but only to be burnt away in the intense fire of the emergence of God's will. The energy flowing through nature is revealed as flowing through the soul; the figure in the Augustinian poem desires the transcendence of nature, of the world, in God's will. Earthly suffering produces purification, as "the earthly" must be consumed in order to make way for the great spiritual consummation. In terms of Husserl's erasure, the "Augustinian poem" relates to the overt and covert levels of interpretation: if one can "see" only tone and not melody, one is arrested in nature, lacking soul.

6. In *La technique et le temps,* vol. 3, *Le temps du cinéma et la question du mal-être* (Paris: Galilée, 2001) [forthcoming in English under the title "The Time of Cinema and the Question of Discomfort"], I comment extensively on Simondon's point in his book *L'Individuation psychique et collective* [Psychic and Collective Individuation] (Paris: Aubier, 1989).

7. "In our figure, the horizontal line or ordinals indicates the modes of the object's duration in time. They go from the O (a common point) to a determined extension, the last 'present' of the final point. Then follow the modes of elapsed time that no longer comprise any present (of this duration); duration is thus no longer present but past, and it ceaselessly recedes further and further into the past. The figure thus gives a complete image of the double continuity of the modes of time-passage" (Husserl 1991 [1966]).

8. "Who had seen, up to 1900, those whose reflections on art we continue to find relevant or significant, and who we imagine speak about the same works we do; are their references ours as well? Two or three great museums, some photos,

engravings, or copies of a small part of Europe's masterpieces. Most of their readers, but very few. There was thus, within artistic consciousness, a fluid zone holding that the confrontation of a painting in the Louvre and one in Florence, in Rome, or Madrid, was between a painting and a memory. Optical memory is not infallible, and many weeks often separated these successive studies" (Malraux, *La musée imaginaire*).

9. "Re-remembering, with its free mobility joined to its recapitulative power, makes free reflection recede. Reproduction then becomes 'a free transference' that can give representation of the past a tempo, an articulation, a variable clarity" (Ricœur 1983-85, 54).

10. Derrida presented his *mémoire* (dissertation) on Husserl, which subsequently became *The Problem of Genesis* in 1953. Stiegler refers to the dissertation's case regarding *The Origin of Geometry*, as opposed to the case JD makes in the published version seven years later.

11. Husserl 1970 [1939], "The Origin of Geometry." *Ursprung der Geometrie*, p. 218 *H. 6*, p. 377.

12. Such as the intuitional expansion and signification to which Jean-Luc Marion points in *Réduction et donation*, pp. 10–63.

13. It is not inconsequential that France requested in the GATT negotiations that these programming industries be treated as a "cultural exception." But it is not certain that these preconceived measures were at the heart of the problem. We shall have to return to this question elsewhere.

14. It could be argued here that high-speed telecommunications networks (information superhighways) will change this situation by allowing for a much more diversified access to audiovisual programs, and this is true up to a certain point. But we must emphasize that:

> —on the one hand, the very structure of the event, as the global media system conditions it at the heart of an industrial economy essentially concentrated on several international agencies providing textual and audiovisual information, would not be altered by it, but rather intensified-which obviously does not preclude its being open to new possibilities;
>
> —on the other hand, that the extremely rich and still unexplored possibilities of what we call "multimedia" are only possibilities themselves: a purely economical logic could easily reduce them to their poorest forms.

15. The technical term *mouse-event* is widely used to describe both scripted and graphics applications on-screen. It can involve special mouse settings and the creation of hot buttons for games and graphics applications.—Trans.

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