CINEMA AS MNEMOTECHNICS
Bernard Stiegler and the "Industrialization of Memory"

In his multi-volume work *La Technique et le temps*, or *Technics and Time*, Bernard Stiegler attempts to rethink the relationship between the human and technical objects, or what he calls "technics." The term "technics" here renders the French "*la technique*" which, as Stiegler's translators Richard Beardsworth and George Collins point out, refers to the "technical domain or to technical practice as a whole." It is therefore to be distinguished from "*la technologie*" ("technology") and *technologique* ("technological") which refer to the "specific amalgamation of technics and the sciences in the modern period" (Beardsworth and Collins in Stiegler, *Technics and Time* 280–81 n. 1). The English term, technics, is probably best known through its use by the theorist of technology Lewis Mumford, who first uses it in his 1934 book *Technics and Civilization*. Mumford defines the term in the later *Art and Technics* as "that part of human activity wherein, by an energetic organization of the process of work, man controls and directs the forces of nature for his own purposes" (*Art and Technics* 15).[1] However, in the work of Stiegler, the term "technics" takes on a particular meaning. Stiegler uses technics to refer to what he calls "organized inorganic matter." He explores a history of technics as epiphylogenesis – the preservation in technical objects of epigenetic experience. Epiphylogenesis for Stiegler marks a break with genetic evolution (which cannot preserve the lessons of experience), a break which also constitutes the "invention" of the human. As Stiegler puts it in the general introduction to *Technics and Time*: "As a 'process of exteriorization,' technics is the pursuit of life by means other than life" (*Technics and Time* 17).

This paper will briefly outline Stiegler's ideas around technics as they appear in the first volume of *Technics and Time*. It will move on to show that in more recent work by Stiegler, exemplified by the later volumes of *Technics and Time*, there is a shift of emphasis in Stiegler's thinking of technics. This shift seems to be characterized by the move from an emphasis on technics as the exteriorization of the human, or on prosthesis, to an emphasis on technics as what Stiegler calls "tertiary memory," or mnemotechnics. This is paralleled by a move from the first volume's exploration of the origin of the human in tools and writing to an explicit focus on modern tele-technologies, on cinema, on the televisual and on technoscience. This new emphasis on technics as "tertiary memory" is therefore accompanied by a rethinking of tele-technologies as the global "industrialization of memory."

i Prosthesis and the Exteriorization of the Human

There are really two different strands to Stiegler's argument in the first volume of *Technics and Time* ("The Fault of Epimetheus"). The first is a reading of the question of technics in relation to the philosophical anthropology of Rousseau, the work of the French anthropologist Leroi-Gourhan, the work of the historian Bertrand Gille, and that of the the-

orist of technology Gilbert Simondon. Here the argument is concerned with the anthropological question of the origin of the human and seeks to demonstrate that the origin of the human is to be found not in some essence of the human being itself, whether biological or transcendental, but rather in a new relation between the living and the non-living, or a new process of exteriorization whereby the "interior" of the living being becomes inextricably bound up with an "exterior" realm of tools or of inscription. The history of the human is therefore no longer in the realm of genetic evolution but that of technical evolution (or the evolution of "organized inorganic beings")[2] in which it is impossible to separate the living being from its external prosthetic technical support. Stiegler distinguishes this technical evolution from biological evolution (phylogenesis) by calling it *epiphylogenesis*.

The second strand is an argument by which Stiegler positions himself both with respect to the work of his immediate predecessor, Jacques Derrida, to whom he is clearly indebted[3] and with respect to the work of Heidegger and Husserl. Here, what Stiegler is keen to show is the repression of technics throughout the history of philosophy from Plato to Heidegger, an argument which is clearly also brought out in Derrida's discussion of the repression of writing, but not quite in the form in which Stiegler wishes to present it.[4] Although in many ways, as Stiegler admits, Heidegger's approach to technics is ambiguous[5] and despite the fact that Heidegger could be seen in some ways to broach the question of technicity – for example, through the discussion of being-in-the-world, facticity and the already-there in *Being and Time*, and his criticism of instrumentality in *The Question concerning Technology* – Stiegler argues that Heidegger fundamentally mistakes the question of technics, in particular by failing to see the constitutive role that technics plays in temporality. This dialogue with Heidegger is the concern of much of the latter part of the first volume of *Technics and Time*.

In many ways what holds these two strands of "The Fault of Epimetheus" together is the figure of Epimetheus himself. Stiegler refers to two accounts of the myth of Prometheus and Epimetheus. The version of the myth recounted in the *Protagoras* is as follows. Epimetheus is allotting powers to mortal creatures. He shares various powers like speed and strength out among the animals in a balanced manner so that no species is too strong and no species will be destroyed. Having completed this distribution he realizes that he has forgotten humans (leaving them "naked, unshod, unbedded and unarmed": Plato, *The Collected Dialogues* 321c). When his brother Prometheus discovers the error he steals from the gods skill in the arts (in Greek, *ten enteknen sophian*, a point which Stiegler underlines)[6] and fire. This myth therefore provides the following explanation of the human condition:

> Since then, man has had a share in the portion of the gods, in the first place because of his divine kinship he alone among living creatures believed in gods, and set to work to erect altars, and images of them. Secondly, by the art which they possessed, men soon discovered articulate speech and names, and invented houses and clothes and shoes and bedding and got food from the earth. (*The Collected Dialogues* 322a)

Now there are a number of points that Stiegler wants to underline in Plato's account. The first is that, unlike the anthropological accounts of Rousseau and Leroi-

Gourhan, humankind is here constituted not in relation to the animal, as an animal with something added (a consciousness, soul or freewill), but in relation to the gods: "the deviation, if there is one, is not in relation to nature but in relation to the divine … Anthropogony only acquires meaning in theogony" (*Technics and Time* 189). The human is therefore not so much a special type of animal as a deficient god: a being with access to the powers of the gods (and hence with an understanding of immortality through *religion*), but in mortal form. Contra Rousseau, then, "[it] is not a matter of recalling a state of nature, nor of claiming what 'human nature' ought to have been; there was no fall, but a fault, no hap nor mishap, but mortality" (190). There is no origin of human nature which is then deviated from; the human, the mortal, is deviation itself. Unlike animals, who are each allotted essential characteristics or powers, the human is originally nothing. The origin of the human is thus constituted by a lack. The crucial figure here for Stiegler is Epimetheus, who constitutes, through his forgetfulness, the human as this originary lack or default, and not the more traditional figure of Prometheus. Epimetheus is forgotten by a philosophy which would see humanity constituted positively through the gifts and qualities that Prometheus bestows, and not through the originary lack or fault of Epimetheus. In fact Prometheus's fault (*faute*) – that is, his theft from the gods – simply doubles up Epimetheus' originary fault of forgetting. Both Titans, Prometheus and Epimetheus are necessary to understand the origin or "origin" of the human, which would be constituted *both* by the lack or default and what comes to make up for that default in the form of prosthesis (*tekhne–*).

Since the "human" is constituted through its exteriorization into tools, its origin is neither biological (a particular arrangement of cells) nor transcendental (to be found in something like consciousness). The origin of the human as the prosthesis of the living is therefore fundamentally aporetic: one should speak, for Stiegler, of a non-origin or default of origin.[7] Stiegler develops these arguments through a reading of Rousseau and Leroi-Gourhan, showing on the one hand how the empirical approach of the palaeo-anthropologist cannot avoid the transcendental question of origin and, on the other, how Rousseau's transcendental account of the question of origin inscribes inside its account, despite itself, the thought of the human as contingent or accidental.[8]

ii Technics as Tertiary Memory

The idea of tertiary memory in Stiegler's *Technics and Time* emerges initially at the end of the first volume, "The Fault of Epimetheus," in the context of Stiegler's discussion of Heidegger but it is only in the later volumes that it is developed at length and becomes a dominant theme. Stiegler develops the idea of tertiary memory through a reading of Husserl. In particular, Stiegler is interested in Husserl's distinction between primary and secondary retention. For Husserl, primary retention is part of the very constitution of the temporal object and therefore part of perception in as much as we perceive temporal objects. The key example of a temporal object in Husserl – and the one that Stiegler concerns himself with – is the melody. Stiegler glosses Husserl's argument about the melody as follows:

A melody is a temporal object in the sense that it constitutes itself only in

duration. The phenomenon of this temporal object is a flow … the properly temporal object is not simply in time, it constitutes itself temporally, it weaves itself into the thread of time – as that which appears in passing, as that which passes, as that which manifests itself in disappearing, as a flux vanishing as it is produced. When I listen to a melody, the object is presented to me in a flow. In the course of the flow each of the notes which presents itself now has retained in it the note which preceded it, this note retained in it all the notes which preceded it, it is the "now" [*maintenant*] as persistence [*mantien*] of the presence of the object: the present of the temporal object is its persistence. It is in this way that the unity of the temporal object is constituted. It is because it retains all the notes, all the sonorous nows [*maintentants*] that preceded it that the present note can sound melodically, be musical, be harmonious or non-harmonious, be properly a note and not only a sound or a noise.[9]

The melody, then, is an example of primary retention in as much as the retention of previous notes belongs to the very act of perception. Without this primary retention, or primary memory, there is no perception of the melody. Husserl differentiates this type of memory from what he thinks of as secondary retention or memory. An example of this second type of memory would be remembering a melody heard yesterday. The important point here for Husserl, as Stiegler emphasizes, is that whereas primary retention belongs to the act of *perception*, secondary retention belongs to the *imagination*. For Stiegler this means that Husserl doesn't just distinguish between primary and secondary retention, he actively *opposes* them, he sets up an "absolute difference" between them, mirroring the distinction between "perception" and "imagination" (Stiegler, *Le Temps du cinéma* 38–39). This distinction is, in effect, essential for Husserl in as much as he wants to argue that the temporal object, for example the melody, is a real object of perception, not an imaginary one. However, as Stiegler argues, in inaugurating this absolute difference between primary and secondary retention, Husserl "[posits] that perception owes nothing to imagination, and that what is perceived is in no case imagined, can absolutely never be contaminated by the fictions of which imaginary productions consist: life is perception, not imagination."[10] Since primary retention never involves imagination, it also never involves any acts of selection: the kind of memory constitutive of primary retention is never selective: it retains everything. For if primary retention involved selection it would already indicate that, as Stiegler puts it, "a kind of imagination" was at work in that selection process. Against Husserl's absolute distinction between primary and secondary memory, Stiegler outlines the counterexample of what is happening when I listen to a melody more than once, for example when I play a record several times. Stiegler argues:

You only have to listen twice to the same melody to see that between the two auditions, consciousness (the ear, here) never hears the same thing: something has occurred. Each new audition affords a new phenomenon, richer if the music is good, less so if not, and that is why the music lover is an *aficionado* of repeated auditions – a variation of selections … From one audition to the next the ear is not the same, precisely because the ear of the second audition has been affected by the first.

This difference between auditions can be understood, for Stiegler, only if the primary retention of the melody I am listening to now is somehow modified by the secondary memory of the same melody heard previously. The experience of perceiving the same temporal object, that is, the melody, twice reveals that the temporal object cannot be simply constituted through primary retention. Moreover – and here the theme of technics reasserts itself – the very experience of perceiving the same temporal object twice is possible only by virtue of the prosthetic memory support of digital or analogue recording. It is only with the advent of such technologies that the verbatim repeatability of the temporal object becomes possible. Stiegler calls this technical memory support "tertiary memory" and argues that "it is the phonogram *qua* tertiary memory that originally highlights the fact of the selection of primary retentions by consciousness, and thus the intervention of imagination at the very center of perception" (72).

Stiegler therefore locates in the gramophone record an inversion of Husserl's model of memory. For Husserl there is primary retention, the form of retention that belongs to perception, which is constitutive of consciousness as temporal phenomenon and without which there would be no perception of a temporal phenomenon such as the melody. Then there is secondary retention, which as the (selective, imaginative) memory of a previous experience is already derivative and not constitutive of experience. In effect, secondary memory is a re-presentation or reactivation of primary retention. Both of these types of memories are distinct from recorded memories, such as pictures, which Husserl calls image-consciousness but Stiegler prefers to call "tertiary memory." For Stiegler, on the other hand, tertiary memory is constitutive of primary and secondary memory and not derivative from them. Stiegler's point is that in the gramophone record, more generally *in the recorded temporal object*, it is not perception which makes possible memory and the artefact but the artefact that makes possible both primary and secondary retention: the record allows both the perception of the melody and, crucially, the constant modification of that perception through repeated auditions.

iii The Industrialization of Memory

For Stiegler, then, perception of the temporal object can never be purely or simply constituted by primary retentions but only through a process of imaginative selection afforded by secondary and tertiary memory. The gramophone record is one example of the constitution of the temporal object through the intertwining of primary, secondary and tertiary memory. Another example – one which is crucial to the arguments that Stiegler wants to advance – is cinema (understood here in general terms as the technology of the moving image). The film, like the melody, constitutes itself as temporal flux. According to Stiegler, consciousness is particularly affected by the cinematic temporal object:

> the singularity of the cinematographic recording technique lies in the *conjugation of two coincidences*: on the one hand, the photo-phonographic coincidence of past and reality … inducing this "reality effect," that is, this belief which is installed in the spectator immediately by the technique itself; on the other hand, the coincidence between the film flux and the flux of

consciousness of the film's spectator that triggers, in the play of movement between the photographic stills linked by the phonographic flux, the mechanism of *complete adoption* of the film's time by the time of the spectator's consciousness that, itself a flux, finds itself captured and "borne along" by the movement of images. This movement, invested by the desire for stories living in all spectators, frees the *movements of consciousness* characteristic of cinematographic *emotion*.[11]

We can now see the true significance of Stiegler's reworking of Husserl. If the temporal flux of cinema coincides with consciousness it is because consciousness is itself to be understood on the basis of a temporal flux. In effect this leads Stiegler to assert, against Deleuze, "the hypothesis of an essentially cinemato-graphic structure of consciousness in general, as if it 'has always been engaged in cinema without knowing it' – which would explain the singularly persuasive force of cinematography."[12] The importance of cinema is not that it artificially mimics a properly natural temporal flux in consciousness. For this temporal flux of primary retention is always already "artificial" in the sense of being modified and constituted through secondary and tertiary memory. In this sense cinema simply partakes in the history of mnemotechnics or the "exteriorization of memory" from primitive tools through writing to analogue and digital recording. But the recording and reproduction of the temporal object nonetheless marks a distinctive shift in history of this exteriorization and in the relationship between primary, secondary and tertiary memory.

To understand the constitution of the temporal object as fundamentally technical is also, for Stiegler, an explicitly political project. As he puts it, "to understand the singularity of the affection of consciousness by temporal objects is to begin to understand the specificity and the force of cinema, how it can transform life – for example by getting the whole world to adopt the American way of life" ("The Time of Cinema" 72). It is important, therefore, to understand cinema – to understand the audiovisual in general – not only as a new type of tertiary memory but also as the "industrialization of memory."

> The 20th century is the century of the industrialization, the conservation and the transmission – that is, the selection – of memory. This industrialization becomes concretized in the generalization of the production of industrial temporal objects (phonograms, films, radio and television programs, etc), with the consequences to be drawn concerning the fact that millions, hundreds of millions of consciousnesses are every day the consciousnesses, at the same time of the same temporal objects. (106)

Stiegler argues that this industrialization of memory leads to a "loss of individuation," a terminology he is borrowing from Gilbert Simondon's account of industrialization in the nineteenth century.[13] For Simondon, the advent of industrialization takes individual technical skill away from the worker and replaces it with the machine tool. This deprives the worker of the ability to differentiate – to individuate, in Simondon's terms – their labour. In Stiegler the industrialization of memory shifts this loss of individuation to the psychic domain and results in what he calls a "proletarianization" of the spirit or "pauperization of culture."

At this point, Stiegler's argument begins to sound similar to that of Adorno and Horkheimer around culture industry (*Kulturindustrie*) in *Dialectic of Enlightenment*. For Adorno and Horkheimer what is at stake is, in Kantian terms, the loss of an individual ability to schematize:

> Kant's formalism still expected a contribution from the individual, who was thought to relate the varied experience of the senses to fundamental concepts; but industry robs the individual of this function. Its prime service to the customer is to do his schematizing for him. Kant said there was a secret mechanism in the soul which prepared direct intuitions in such a way that they could be fitted into the system of pure reason. But today that secret has been deciphered. (*Dialectic of Enlightenment* 124)

Ostensibly this power of the culture industry to rob the individual of their individual schematization seems similar to Stiegler's "industrialization of memory" and "loss of individuation." However, there are several reasons why what Stiegler is saying is importantly different from Adorno and Horkheimer. The first is the one that, conscious of this comparison, Stiegler makes for himself. Stiegler does this through the argument around Kant in *Dialectic of Enlightenment*. Adorno and Horkheimer argue that the schematism, which in Kant unifies sensibility and understanding, has been taken over by the culture industry. As Stiegler puts it:

> Kantianism distinguishes two sources without which no knowledge is possible for the human subject. Schematization, carried out by the imagination, is what permits their unification, which means at the same time, the unity of consciousness itself. Horkheimer and Adorno describe the industrialization of the imagination as an *industrial exteriorization of the power of schematization* and in this way as a *reification*, as an alienating "thingification" of knowing consciousness.[14]

But for Stiegler, as we have seen, consciousness is always already exteriorized into its technical supports: from the earliest tools, through writing to tele-technologies. It can therefore never be a question of technology usurping the place of a properly "human" faculty of schematization. Indeed, the schematism is already technical:

> If there can be an industrial schematism, it's because *the schema is originarily and in its very structure industrializable: it passes through tertiary retention*, that is, through technics, technology and, today, industry.[15]

In a sense, for Stiegler it is this "technics" of the schematism that Adorno and Horkheimer have failed to think. For Stiegler the industrialization of memory is not a transformation in the relationship between technology and culture or between technology and individual imagination but a transformation in the technology of memory itself.

More generally – although Stiegler does not discuss this directly – we can see this problematic at work in the way in which Adorno and Horkheimer systematically push the question of technology to one side of the analysis:

> Interested parties explain the culture industry in technological terms … No mention is made of the fact that the basis on which technology acquires power over society is the power of those whose economic hold over society is greatest. A technological rationale is the rationale of domination itself … It has made the technology of the culture industry no more than the achievement of standardization and mass production, sacrificing whatever involved a distinction between work and that of the social system. This is the result not of a law of movement in technology itself but of its function in today's economy. (*Dialectic of Enlightenment* 121)

By subordinating technical evolution to the rationale of economic and social power, technology here is understood in classical fashion as a means to an end, as a tool fashioned and directed by an intention that lies outside of it. The question of technology is thus displaced by socio-economic analysis. However, it is just this understanding of technology that Stiegler's whole project seeks to challenge. Stiegler situates the problem of industrialization at the level of tertiary memory and not at the level of culture. The critique of this industrialization, or what Stiegler calls "the politics" of memory, is therefore inseparable from the rethinking of the relation between the human and its technical supports.

Notes

1 Leo Marx argues that Mumford uses technics "as the umbrella category of tools and utensils that figure in all of recorded history … [it] enables him to stress the relatively brief history, hence the distinctiveness of machine technologies" (*Lewis Mumford* 175). Rosalind Williams observes: "The term 'technics' therefore has a wider range than 'technology'" ("Classics Revisited" 149).

2 Stiegler, *Technics and Time* 17.

3 "Jacques Derrida has made this work possible through his own, and the reader will find in these pages a reading that strives to remain faithful while taking on ('starting from,' 'beside,' and in the deviation (*écart*) of a différance) the fascinating inheritance that the spectral authority of a master engenders – all the more fascinating when the master suspects any and all figures of mastery" (Stiegler, *Technics and Time* x).

4 On this point and, more widely, on the relationship between Stiegler's work and that of Derrida see my article "Deconstruction and Technics." See also Beardsworth, "Thinking technicity"; Bennington, "Emergencies."

5 Despite the "vehemence" (195) and "animus against Heidegger" (181) which Geoffrey Bennington suggests characterize certain sections of Stiegler's discussion of Heidegger, Stiegler does in fact insist on a certain complexity and ambivalence in Heidegger's approach to technicity ("Emergencies" 181, 195). This understanding can be glimpsed in

Stiegler's "General Introduction" to *Technics and Time* where he remarks as follows: "the difficulty of an interpretation of the meaning of modern technics for Heidegger is on a par with the difficulty of his entire thought. Modern technics is the concern of numerous texts, which do not always appear to move in the same direction. In other words, the meaning of modern technics is ambiguous in Heidegger's work. It appears simultaneously as the ultimate obstacle to and the ultimate possibility of thought" (*Technics and Time* 7). It is also notable that Stiegler is keen to distance Heidegger's approach to technicity from Habermas, who he argues is simply reproducing "the founding positions of philosophy" in "liberating communication from its technicization" ("if Habermas and Heidegger appear to agree in considering the technicization of language as a perversion … we can also detect from within Heidegger's analysis the development of a completely different point of view") (12–13). Stiegler goes on to underline quite forcefully the point that Heidegger does not hold a "traditional metaphysical position towards technics" in condemning Marléne Zarader's reading of Heidegger for confusing technics with calculation and for imagining that Heidegger thinks "falling" can be surmounted ("As if falling were 'surmountable.' This so-called reading of Heidegger has quite simply never read Heidegger …" (208)). In this vein Stiegler also criticizes "the more correct" Dreyfus for imagining that "it is not clear whether *Being and Time* opposes technology or promotes it" (Dreyfus, "Heidegger's History of the Being of Equipment" 175 cited in Stiegler, *Technics and Time* 209). Stiegler counters: "it is never a question of such an alternative; it is not the 'task of thinking' to 'confront' technics – nor of course to promote it – but to open 'oneself to it'" (Stiegler, *Technics and Time* 209 quoting Heidegger, *Basic Writings* 390–92).

6 See Stiegler, *Technics and Time* 187.

7 On the aporia of the origin of the human in relation to the work of Leroi-Gourhan see particularly *Technics and Time* 141–42. Stiegler develops the argument around the "default of origin" (*défaut d'origine*) through a reading of the "fault" of Epimetheus in Plato's *Protagoras*, concluding "[humans] only occur through their being forgotten; they only appear in disappearing" (*Technics and Time* 188). See also Bennington and Beardsworth's exposition of this argument in Stiegler: Bennington, "Emergencies" 180–81); "From a Genealogy of Matter to a Politics of Memory" 95 n. 16.

8 See Stiegler, *Technics and Time* 104–33. On this point see also Richard Beardsworth's account of Stiegler's work: Beardsworth, "From a Genealogy of Matter to a Politics of Memory" 98.

9

> *Une mélodie est un objet temporel au sens où il ne se constitue que dans sa durée. Le phénomène de cet objet temporel est une écoulement … l'objet proprement temporel n'est pas simplement dans le temps: il se constitue temporellement, il se* trame *au fil de temps – comme ce qui apparaît en passant, comme ce qui passe, comme ce qui se manifeste en disparaissant, comme flux s'évanouissent à mesure qu'il se produit. […] Lorsque j'écoute une mélodie, l'objet se présente à moi en*

> *s'écoulant. Au cours de cet écoulement, chacune des notes qui se présente maintenant retient en elle la note qui l'a précédée, celle-ci retenant en elle toutes les notes qui l'ont précédée, elle est le «maintenant» comme maintien de la présence de l'objet: le présent de l'objet temporel est sa maintenance. C'est ainsi que se constitue l'*unité de l'objet temporel. C'est parce qu'elle retient toutes les *notes, tous les maintenants sonores qui la précèdent, que la note présente peut sonner mélodiquement, être musicale, être harmonique ou non-harmonique, être proprement une note, et non seulement un son ou un bruit.* (Stiegler, *Le Temps du cinéma* 36-37 [68] ; translation modified)

10

> *[pose] que la perception ne doit rien à l'imagination, et que ce qui est perçu n'est en aucun cas imaginé, ne peut absolument pas être contaminé par les fictions en quoi consistent toujours les productions de l'imagination: la vie est perception et la perception n'est pas l'imagination.* (Stiegler, *Le Temps du cinéma* 39 [70])

11

> *... la singularité de la technique d'enregistrement cinématographique résulte de la* conjugaison de deux coïncidences*: d'une part, la coïncidence photophonographique entre passé et réalité ... qui induit cet « effet de réel », c'est-à-dire de croyance, où le spectateur est installé d'avance par la technique elle-même; d'autre part, la coïncidence entre flux du film et flux de la conscience du spectateur de ce film, qui part le jeu du mouvement créé entre les poses photographiques, liées entre elles par le flux phonographiqe, déclenche le mécanisme d'*adoption complète *du temps du film par le temps de la conscience du spectateur, qui, en tant qu'elle est elle-même un flux, se trouve captée et « canalisée » par le mouvement des images. Ce mouvement, investi par le désir d'histoires qui habite tout spectateur, libère les* mouvements de conscience *typiques de l'*emotion *cinématographiqe.* (Stiegler, *Le temps du cinéma* 34 [66]; original emphasis, translation slightly modified)

12 See Stiegler, *Le Temps du cinéma* 35 [68]; translation slightly modified. Stiegler is quoting here from Deleuze's objections to Bergson: "Does this mean that for Bergson the cinema is only the projection, the reproduction of a constant, universal illusion? As though we had always had cinema without realising it?" (*Cinema 1: The Movement-Image* 2). Stiegler argues:

> Deleuze is undoubtedly correct to object to Bergson's saying that the reproduction of an illusion is "also its correction in one respect." However, Deleuze fails to draw all the consequences of this objection, precisely because he does not take into account the specificity of reproduction *qua* analog-photographic recording technique, incorporating the Barthesian "it has been," and *qua* fusion of instantaneous stills in the flux of a temporal object. This is the reason why, it seems to me, Deleuze fails to explain what "having been engaged in cinema without really

knowing it" means and fails to account for the impact of the moving image. (Stiegler, *Le Temps du cinéma* 35 [66])

13 See Simondon, *Du mode d'existence des objets techniques*.

14

Le kantisme distingue deux sources sans lesquelles aucune connaissance n'est possible pour le sujet humain: la sensibilité et l'entendement. La schématisation, opérée par l'imagination, est ce qui permet leur unification, c'est-à-dire, du même coup, l'unité de la conscience elle-même. Or, les industries culturelles étant des industries de l'imaginaire, Horkheimer et Adorno décrivent l'industrialisation de l'imagination comme une extériorisation industrielle du pouvoir de schématisation*, et par là même, comme une* réification*, comme une chosification aliénante de la conscience connaissante.* (Stiegler, *Le Temps du cinéma* 68)

15

S'il peut y avoir un « schématisme industriel », c'est parce que le schème est originairement et dans sa structure même industrialisable: il passe par la rétention tertiaire*, c'est-à-dire par la technique, la technologie et, aujourd'hui, l'industrie.* (Stiegler, *Le Temps du cinéma* 74)

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