

## Freud as media theorist: mystic writing-pads and the matter of memory

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Amongst all the conceptual uncertainty now surrounding the validity of his work, the one key idea of Sigmund Freud that has entered the culture like no other is that of the *Unconscious*. One can think of it as Freud's answer to the question of human agency: are we self-determined, do we know what we are doing, or are we never fully self-present in our actions, however rational they appear to us? But today the Unconscious can also be understood differently: not as a psychic fact, to explain discrepancies between intention and action, but as the necessary hypothesis in response to a problem for which no other assumption could provide a satisfactory or even plausible answer. What if the Unconscious were a 'place-holder' rather than a place? A virtual space, the locus where two apparently incompatible conceptions of the working of the psyche converge, making the Unconscious the 'provisional' answer to a problem that Freud encountered. And what is this problem? My suggestion – and not only mine – is that it is the issue of 'memory'. As Freud boldly noted in 1895: 'any psychological theory deserving consideration must provide an explanation of memory'.

In what follows, I shall explore this idea by focusing on the parts of Freud's work that try to tackle the problems of inscription/recording and of storage/retrieval – two essential aspects of memory, but also of the audiovisual media, in particular cinema, now at the crossroads between the photographic and the digital. Freud's best-known papers confronting

the question of memory are ‘A project for a scientific psychology’ (1895) and ‘A note upon the “mystic writing-pad”’ (1925); and although the two texts are thirty years apart they show a remarkable consistency of thinking. They are also indicative of how persistently this question of memory preoccupied Freud, without leading him to a satisfactory solution. Consider how, in 1925, he summarized the problem of memory:

All the forms of auxiliary apparatus which we have invented for the improvement or intensification of our sensory functions are built on the same model as the sense organs themselves or portions of them: for instance, spectacles, photographic cameras, ear-trumpets. Measured by this standard, devices to aid our memory seem particularly imperfect, since our mental apparatus accomplishes precisely what they cannot: it has an unlimited receptive capacity for new perceptions and nevertheless lays down permanent – even though not unalterable – memory traces of them.<sup>1</sup>

In this and the passages that follow, where he explains how a simple mechanical device – the mystic writing-pad or *Wunderblock* – combines an ‘ever-ready receptive surface’ with the ‘permanent traces of the notes that have been made upon it’, Freud shows how our senses along with our brain, when taken together as the ‘psychic apparatus’, are able to accomplish something which for any technical apparatus is apparently impossible to achieve, namely to combine the function of (sense-data) transmission and the function of (sense-data) storage. It is as if psychoanalysis had to be invented in order to bridge this gap, and to explain – via the positing of the Unconscious – how the ‘perception-consciousness system’ receives but does not retain perceptions, while the ‘system of the Unconscious’ preserves not perceptions but ‘excitations’, which become ‘permanent’, in the form of mnemic traces.

As not only ‘A note upon the “mystic writing-pad”’ but also ‘A project for a scientific psychology’ make clear, consciousness and memory, transmission and storage, are mutually exclusive. Consciousness (the perceptual system) should be imagined as a feedback system or a dynamic circuit, and therefore must not retain any data, otherwise it could not respond to the environment and be self-regulating. If, on the other hand, that which Freud called the Unconscious were unable to retain data and store unlimited quantities, there could be no ‘memory’ of any kind – whether repressed, habitual, voluntary or involuntary. By arguing that ‘any psychological theory deserving consideration must provide an explanation of memory’, Freud raises the bar for himself, and asks how to conceive of memory; which is to say, how to picture the relation between input, storage and processing. It is in this sense that the invention of the Unconscious can be understood as a partial answer.

But if the problem was already clearly posed in 1895, and only in 1925 found an apparent answer in ‘A note upon the “mystic writing-pad”’, it raises other questions, not least one about the mystic writing-pad itself: what sort of ‘answer’ does it constitute; is it a serious suggestion of a

1 Sigmund Freud, ‘A note upon the “mystic writing-pad”’ (1925), in *The Standard Edition of the Complete Psychological Works, Volume XIX*, ed. and trans. James Strachey (London: The Hogarth Press, 1961), p. 228; ‘A project for a scientific psychology’ (1895), in *The Standard Edition of the Complete Psychological Works, Volume I*, ed. and trans. James Strachey (London: The Hogarth Press, 1966), p. 175.

workable media technology; is it a metaphor that alludes to a technical solution, which by invoking what is essentially a child's toy deliberately sidesteps the issue of media technology; or is it no more than a personal in-joke? Indeed, it could be the case that Freud deliberately used such an improbable – and yet on second thoughts apt – example precisely in order not to have to declare himself on the technical media of transmission and storage that were developing during his lifetime; because – rightly or wrongly – he judged that they did not fulfil his own requirements for a memory apparatus that could replicate or 'improve' on human memory.

In taking this approach, I am positing another Freud: neither the psychoanalyst nor the cultural critic; neither the Freud familiar from film theory nor the 'French Freud', whether centred on the function of language in the formation of the Unconscious (Lacan) or the one censoring desire through 'repression' rather than its liberation/proliferation through the drive (Foucault, Deleuze/Guattari).<sup>2</sup> Rather, I want to imagine Freud the media theorist. He qualifies as such for a number of reasons, the main one being that he thought of the body/mind as a storage and recording medium as well as an input/output device. What interested him were the following parameters: sensory input (mainly sound and vision) and its output, representability (visualization, narrativization, linguistic representation including slips of the tongue and parapraxes). Secondly, Freud was interested in temporality (as rupture, gap or discontinuity rather than as time's linear arrow of sequence and succession). He speculated that time was a dimension that mankind had invented to protect itself from discontinuity and the contingent, and that it was a subjective category (rather than the physical, thermodynamic principle of entropy); this is why he introduced the notion of *Nachträglichkeit*, or deferred action, suggesting that in our thinking about 'time' we let effects rewrite their own 'causes'. Finally, and perhaps not coincidentally, Freud had a great interest in archaeology – in the trace, the index and the imprint as forms of inscription and recording – as well as in geological strata, which gave rise to another of his topological models of the psyche. But if Freud is to be taken seriously as a media theorist, how can one explain his hostility towards, and neglect of, the technical media of his time, and how does his interest in memory fit into a broader media history?

In film theory, the constellation around 'French Freud' tried to reinterpret perception, visuality and the optical-specular, centring initially on looking, the gaze, their relation to identity and sexual difference and, subsequently, on the self-monitoring of panopticism as an aspect of selfconsciousness and the formation of a socially adaptable ego.<sup>3</sup> The constellation I am invoking, of Freud the theorist of auxiliary memory and technical media, shifts this perspective away from film to a more general consideration of technical media. It comprises Jacques Derrida (rereading Freud, in his 'Freud and the scene of writing'), Mary Ann Doane (rereading Freud across one of the precursors of the cinema,

2 Among the many writings by French philosophers who refer to Freud, the key texts that prove relevant to film studies are: Jacques Lacan, 'The mirror phase as formative of the function of the I', in *Écrits: a Selection*, trans. Alan Sheridan (London: Tavistock, 1977); Louis Althusser, 'Ideology and ideological state apparatuses', in *Lenin and Philosophy and Other Essays* (London: New Left Books, 1971); Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Robert Hurley et al. (London: Athlone Press, 1984); Michel Foucault, *The History of Sexuality* (London: Penguin, 1990).

3 The numerous writings on 'cinema and psychoanalysis' include E. Ann Kaplan (ed.), *Psychoanalysis and Cinema* (London: Routledge, 1990); Constance Penley (ed.), *The Future of an Illusion: Film, Feminism and Psychoanalysis* (Minneapolis, MN: University of Minnesota Press, 1989); Janet Bergstrom (ed.) *Endless Night* (Berkeley, CA: University of California Press, 1999).

4 Jacques Derrida, 'Freud and the scene of writing', in *Writing and Difference*, trans. Alan Bass (Chicago, IL: University of Chicago Press, 1978), pp. 196–224; Mary Ann Doane, *The Emergence of Cinematic Time* (Cambridge, MA: Harvard University Press, 2003); Friedrich Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford, CA: Stanford University Press, 1999).

the scientist and chronophotographer Etienne-Jules Marey) and Friedrich Kittler (rereading Jacques Lacan, and Lacan's interest in cybernetics and mathematics).<sup>4</sup> This trio's points of intersection – and their relevance to contemporary film theory – involve trace, inscription and writing, the function of speech and the voice, the relation between print culture and the cinema, the body as text, women and media-machines, and finally, the conception of time and intermittence.

Thus, if film theory from the 1960s to the early 1990s concentrated on Freud in order to understand questions of subjectivity and identity as these arise from filmic spectatorship and the cinematic apparatus when conceived as a Cartesian optical theatre, then Freud, the media theorist of this other constellation – that of a possible media/memory theory for the twenty-first century – proposes a theory of the visual and audial media that sees these questions more from the perspective of reproduction – as a problem of generation and replication, storage and processing. We would be dealing with a general mode of information transmission and transcoding, of which 'media/memory' in its widest sense (including 'history' and 'cultural memory', as well as machine-memory) is the special human form, but which at the limit encompasses the transmission of all information, including biological information (and which thus allows for non-human forms of memory).

Focused more narrowly, the argument would be that at the turn of the twentieth century technical media began to challenge the dominance of writing, and thus of symbolic notation, by emulating writing, thereby reproducing the effects of the medium which it sought to replace. Cinema, for instance, did this by developing a specific form of filmic narrative or storytelling ('classical cinema'), as well as by instantiating an ontology of trace and imprint ('realism', 'photographic indexicality', different regimes of 'verisimilitude'). A hundred years later, cinema is itself being challenged by other kinds of data flows. Contemporary data flows include, of course, sounds and images; but their 'generation' is no longer conceivable solely on the analogue model of trace and imprint, and their quantity, frequency and magnitude cannot be adequately processed and 'linearized' through narrative. Hence the current 'crisis' in our understanding of cinema, which we must increasingly learn to uncouple from narrative, just as we are revising our assumptions about photographic 'indexicality' and the evidentiary 'trace'. At the same time, the technical capacity of the audiovisual media to generate somatic-sensory experiences of extreme physical presence and bodily proximity (now called 'special effects' rather than 'realism') raises formidable challenges to both 'narrative' and 'representation'. It demands new forms of sorting and organizing data. Popular culture copes with the problem in the form of simplified cosmologies or by reviving mythological archetypes, but the avant garde (and aesthetic theory) are hard pressed to find the symbolic forms, the concepts and the new modalities of mnemonic traces or visualizations that can register the momentous shifts in scale and volume.

5 Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001), p. 295.

6 Harun Farocki, *Nachdruck/Imprint* (New York, NY: Lukas and Sternberg, 2001); Thomas Elsaesser (ed.), *Harun Farocki: Working on the Sightlines* (Amsterdam: Amsterdam University Press, 2004); Paul Virilio, *Guerre et cinéma I: logistique de la perception* (Paris: Étoile, 1984). See also Laura Marks, 'Information, secrets and enigmas', in this issue.

7 See, for instance, Jacques Rancière, *La fable cinématographique* (Paris: Seuil, 2001).

8 See the tag clouds generated by online databases such as the Internet Movie Database, <http://www.imdb.com/>

9 Sigmund Freud, 'Beyond the pleasure principle' (1920), in *The Standard Edition of the Complete Psychological Works, Volume XVIII*, ed. and trans. James Strachey (London: The Hogarth Press, 1955), p. 153; Walter Benjamin, 'The work of art in the age of mechanical reproduction', in *Illuminations* (New York, NY: Schocken, 1972). See also Rosalind Krauss, *The Optical Unconscious* (Cambridge, MA: MIT Press, 1993).

10 For a concise statement in English, see Niklas Luhmann, *Theories of Distinction: Redescribing the Descriptions of Modernity* (Stanford, CA: Stanford University Press, 2002).

In short, the very amplification in the registration of audiovisual flows requires one to think differently about the cinema of the past, namely as an attempt (*pace* Lev Manovich) to make art out of footprints.<sup>5</sup> From this perspective, cinema is one culturally specific way of dealing with the question of memory or mnemonic traces, and it can be usefully contrasted with other (mechanical) forms of data registration, data storage and data management. Among such comparable modes of technical memory and information transmission, one can think of the data-storing apparatus of science and the State – such as administration archives, surveillance records, military reconnaissance – or the visualization of data in medicine, meteorology, and so on. Filmmakers such as Harun Farocki and cultural theorists such as Paul Virilio have productively explored the various affinities of cinema with other 'vision machines' and data-processing devices.<sup>6</sup> For our own field of film studies, it might either revive the effort to reclaim cinema as a (romantic) art form par excellence,<sup>7</sup> or lead to the invention of something like a post-literary hermeneutics – perhaps as techniques of 'connected contingency', 'constructive instability' or 'calculated improbability', but at any rate as a form of pattern recognition rather than *Gestalt* recognition, with all the implications for both aesthetics and hermeneutics that this may have.<sup>8</sup>

It is in this context, and from such a contemporary perspective, that I want to consider the relevance of some of Freud's extremely bold models of interpretation for seemingly senseless and random data. It could also give us a new understanding of one of the most widely received ideas of Freud, formulated above all in *Beyond the Pleasure Principle* and taken up by Walter Benjamin in his conception of modernity as the cultural response to technical media's impact on the human perceptual system (what Benjamin called 'the optical Unconscious'). This is the idea that consciousness does not seek contact with the environment, but aims at *reducing contact*, and is thus best understood as a kind of protective shield, evolved over time to neutralize sensory overload and prevent perceptual overstimulation.<sup>9</sup> This would be in line with today's cognitivists' claim that perception is a mere sampling of visual data, reconstituted and processed by the brain; a view also endorsed by system theorists, with their notion of consciousness as self-reference and autopoiesis.<sup>10</sup> The idea of a protective shield is also present in Freud's discussion of the *Wunderblock*, when he refers to the cellophane cover that protects the writing surface from dirt and damage. But above all, the structural asymmetry, in the case of human beings, between the quantity of data capture and the relatively restricted repertoire of data processing (if we regard our cultural store of narratives, poems and stories as 'processing programmes') encourages one to think of Freud's theories of memory (or, more widely, of how he pictured the relation between the perceptual-Conscious system and the mnemonic-Unconscious system) as also a problem of data management; and to ask oneself exactly what role Freud assigned to the image and visualization,

to sound and the voice, and to processing and programming in his version of the psychic apparatus.

Freud never abandoned the empirical sciences, as can be seen from the importance he attached to the key document of his early career, the tellingly entitled 'A project for a scientific psychology'. Nonetheless, his very familiarity with the major technological breakthroughs of his age, and his often oblique response to them, do present us with a paradox. On the one hand, there is much evidence in his work that he knew about revolutions in energy and transport such as the steam engine, hydraulic systems and the railways. The former figure as theoretical motifs in his energy model of the psyche, while his experiences on the railway frequently served him as examples of shock, of trauma, or of the uncanny.<sup>11</sup> Furthermore, there is clear evidence of Freud's awareness of the many innovations in the understanding and applications of electricity, such as electromagnetic fields, electric generators or electricity storage. Key notions of his psychoanalytic terminology – such as resistance, transference, excitation, discharge, cathexis, induction and conductivity – only make sense against the background of the discovery of the properties of electricity; so much so that one sometimes suspects that Freud thought of the psyche as a species of electric battery.<sup>12</sup>

This is one side of Freud. But the paradox arises when one recalls Freud's well-known and often-discussed ambivalence towards modern technology, especially media technologies. Freud was apparently more interested in the human body/psyche as (technical) medium than in technical media as such: in the face of the invasion of mass media he was, above all, a cultural conservative, as if his invention of psychoanalysis was aimed at preserving the embodied and gendered nature of communication against its increasing disembodiment, mechanization, decontextualization and automation. Thus, by all accounts Freud made little use of modern technology in his everyday life. He did not like radio, he was shy of photography, he used the typewriter sparingly and preferred to compose in longhand, and he refused to have the telephone connected to his consulting room or his private office. He certainly disapproved of the cinema, withdrawing his cooperation from a famous filmmaking project intended to popularize psychoanalysis, G.W. Pabst's *Geheimnisse einer Seele/Secrets of a Soul* (1926).<sup>13</sup> But perhaps the most crucial evidence of his technophobia, given that the basic technique of psychoanalysis (the talking cure) is that of recording speech, is the fact that he did not use the Dictaphone or any other recording technology of speech and voice. So, let us keep this apparent paradox in mind: that while Freud might not have utilized the technologies of his day in his practice, they were nonetheless all too present in his theory.

The first commentator to suggest that Freud possessed a media theory was Derrida, who discusses 'A note upon the "mystic writing-pad"' extensively in his essay 'Freud and the scene of writing'. Derrida shows how Freud vacillated between thinking of the psyche as an optical system and as an 'inscription' or 'writing' system. Visual metaphors

- 11 See the opening passage of Freud's famous essay on 'The "uncanny"' (1919), in *The Standard Edition of the Complete Psychological Works, Volume XVII*, ed. and trans. James Strachey (London: The Hogarth Press, 1955), p. 219.
- 12 On this, see Christoph Asendorf, *Batteries of Life: on the History of Things and Their Perception in Modernity* (Berkeley, CA: University of California Press, 1993). One could argue that Freud's three different models of the psyche – the topographic (spatial), the structural (ego, superego, id) and the economic (preservation of energy, modelled on steam pressure) – each represents/implies a different concept of medium, while each also relates to a contemporary technology or science, including archaeology.
- 13 About another film project, Freud wrote 'I won't hold them back since filming seems to be as unavoidable as page-boy haircuts, but I won't have myself trimmed that way and do not wish to be brought into personal contact with any film'. Freud to Sandor Ferenczi, 14 August 1925. Freud's chief objection to a film about psychoanalysis was that he did 'not consider it possible to represent our abstractions graphically in any respectable manner'. Freud to Karl Abraham, 9 June 1925. Cited in Hilde C. Abraham and Ernst L. Freud (eds), *Sigmund Freud/Karl Abraham Briefe 1907–1926* (Frankfurt: Suhrkamp, 1965), pp. 355–71; also cited in: Thomas Ballhausen, Günter Krenn and Lydia Marinelli (eds), *Psyche im Kino: Sigmund Freud und der Film* (Vienna: Film Archiv Austria, 2006), pp. 321–22.

predominate in *The Interpretation of Dreams*, where one finds an entire scenography of telescopes, cameras, microscopes and magnifying glasses. By contrast, once Freud begins to speak of memory, as he does especially in ‘A note upon the “mystic writing-pad”’, the language is one of ‘memory traces’, of the violence with which sensory data break themselves a path (*Bahnung*) into the mental–material substratum and generally force their way into memory. Derrida notes how the *Wunderblock* as a child’s toy inscribes marks or grooves on a wax background, and how these are then ‘mystically’ erased by lifting the plastic cover sheet. Memory here clearly recalls the ancient practice of the palimpsest, the writing process whereby mnemonic impressions emerge, merge and re(e)merge through acts of layering and superimposition.

Derrida’s interest in the mystic writing-pad is multifaceted. Firstly, it confirms his general thesis, namely that the metaphysics of presence in western philosophy is underwritten by a repression of writing, which nonetheless organizes every representational system thus far devised. Secondly, Derrida is able to show how the priority given to speech in psychoanalysis is still grounded in writing, because its effects on the psyche are described exclusively in terms of imprint, inscription and trace (*frayage*, as Derrida translates *Bahnung*); while the categories of Freud’s dreamwork, such as condensation and displacement, are, as Roman Jakobson notes, analogous to the rhetorical figures of metaphor and metonymy, themselves modelled on certain dysfunctions of the brain.<sup>14</sup> But in his book *Archive Fever* Derrida also comments on the paradox noted above, namely the peculiar status of media technologies as at once absent and present in Freud, which Derrida sees – in a manner borrowed from Freud – as itself a repression haunted by the possibility of its return:

One can dream or speculate about the geo-techno-logical shocks that would have rendered unrecognizable the scenery of psychoanalysis . . . [if] . . . Freud, his contemporaries, collaborators and immediate disciples, instead of writing thousands of letters by hand, had had at their disposal AT&T telephone credit cards, portable tape recorders, computers, printers, faxes, television, teleconferencing and above all electronic mail.<sup>15</sup>

Derrida’s little game of anachronisms and hypotheticals gives me licence to introduce not so much an anachronism as a synchronism that may be at least as troubling, but also as revealing, as Derrida’s image of Freud landing, say, at JFK airport equipped with an AT&T phone card. This figure of troubling contemporaneity with Freud is Thomas Edison. If we take Freud’s metaphoric chains and semantic clusters in the ‘Mystic writing-pad’ essay and see them as referring not to writing, to hieroglyphs and palimpsests, but to Edison’s successful attempts to record auditory data on wax cylinders and tinfoil – and add to this the knowledge that Edison developed the *kinetoscope* originally in order to

14 Roman Jakobson, ‘Two aspects of language and two types of aphasic disturbances’, in Roman Jakobson and Morris Halle, *Fundamentals of Language* (The Hague: Mouton, 1956), pp. 67–96.

15 Jacques Derrida, *Archive Fever: a Freudian Impression* (Chicago, IL: University of Chicago Press, 1996), p. 24.

complement the phonograph and to synchronize it with an image machine – then the mystic writing-pad becomes even more mysterious and magical. It reproduces at the level of a *jeu d'enfant* – which is also a *jeu d'esprit* – an ambivalence also present in cinema, at least as conceived of by Edison, where writing (*graphein*) and seeing (*scopein*) are kept in play and in suspension.<sup>16</sup>

Seeing and writing hover over the technical media that make up cinema, in its basic apparatus as well as in its theoretical elaborations, referring back to the very beginnings of cinema this vexed question of the indexicality and iconicity of filmic recording; and suggesting that if we follow Edison and give priority to sound recording – understood as the laying of tracks of physiological data – then the cinematic image functions primarily as the index of a sound emanation or of a physiological-somatic presence and only secondarily as the imprint of a perception. The aesthetics of Jean-Marie Straub/Danielle Huillet, with their demand that spectators should see their films with their ears and hear them with their eyes, would seem to have taken up Edison's thinking and literalized its implications.<sup>17</sup>

Another theorist who has commented extensively on Freud's mystic writing-pad essay is Mary Ann Doane. In *The Emergence of Cinematic Time* she constructs yet another contemporaneity with Freud around cinema; this time not with the acknowledged fathers – the Lumière brothers or Thomas Edison – but with Etienne-Jules Marey, also a physiologist and a scientist, and one of the cofounders (with Eadweard Muybridge) of chronophotography.<sup>18</sup>

Doane's project seems very different from the one I am trying to identify; but she, too, is prepared to take Freud seriously both as a materialist and a media theorist:

In Freud's work, time . . . seems to operate as a symptom whose effects are intensified by the excessive trauma of modernity so that modernity becomes, in part, a pathology of temporality. The impasse of his spatial model of memory forces him to produce a theory of temporality as the discontinuous mode of operation of the psyche itself. Time is not 'out there,' to be measured, but is instead the effect of a protective configuration of the psyche. Freud chooses for his exemplary machine and model, not the cinema, photography, or phonography, but the comparatively old-fashioned Mystic Writing-Pad. In contrast, Marey marshalled the latest technologies of sequential photography (and, in most historical accounts, anticipated the cinema) in order to capture and measure an objective temporality that nevertheless always seemed to elude representation. Together, Freud and Marey figure the limits of the representational problematic within which the cinema developed as a specific mode of organizing and regulating time. Both theorists conceptualized time as a problem of storage or of representation and its failure.<sup>19</sup>

16 On Thomas Edison's thinking on audio-vision, see Gordon Hendricks, *The Edison Motion Picture Myth* (Berkeley, CA: University of California Press, 1961).

17 See Serge Daney, 'Cinémétéorologie', *Libération*, 20–21 February 1982.

18 Mary Ann Doane, 'Temporality, storage, legibility: Freud, Marey and the cinema', in *The Emergence of Cinematic Time*, pp. 33–68.

19 *Ibid.*, pp. 34–5.

20 *Ibid.*, p. 167.

In other words, Doane takes up a number of the themes I have already touched upon, including Freud's theory of consciousness as a protective film or shield against shock and trauma. But she also stresses the pathology of cinema's promise of preserving and representing time in a continuous flow of images and sounds. Freud does not trust this superficial form of narrativizing of the contingent and the continuous, deciding instead that the sensory data flow mechanically produced can only be experienced as unrepresentable. In its emphasis on surface appearances and revelling in the accidental, cinema must have struck Freud, Doane remarks: 'as a veritable reservoir of meaninglessness'.<sup>20</sup> Where psychoanalysis counters the discontinuity and apparent meaninglessness of visual recall by retrieving, repairing and restoring the layers of data no longer accessible, cinema parodies, as it were, psychoanalysis by imposing on perception the logic of an order of the visible which ignores the very 'work' that, in the psychic apparatus, goes into recall, representation and legibility.

If, in light of the above-noted problem of combining perception and data input with storage and data processing, we venture to draw some conclusions that Doane might not herself draw, we could say that cinema has to be understood as an apparatus concerned with perception and the optical only as an initial step; but that its full conceptualization requires an additional dimension, namely that of storage and processing, which – and here Freud was right – cannot be solved by narrative. For those who have taken a historical, or rather an 'archaeological', perspective and have reexamined the so-called 'origins of cinema', this conclusion is almost self evident.<sup>21</sup> Both early cinema (or what is now called 'the cinema of attractions') and the avant garde have consistently refused narrative as a 'solution', even if they have done so for different reasons and with different arguments. Freud's contribution to this debate would be his insistence, so forcefully but also so obliquely expressed in the *Wunderblock* essay, that an apparatus, considered as archive or memory, needs to differentiate clearly and separate the transmission function (mirror or feedback) from the storage function (memory or 'forgetting').

Between perception (and immediate erasure) and the Unconscious (unlimited storage), Freud comes close to specifying the machine requirements for an input/processing/output system. The input would be our 'classical' model of film theory and psychoanalysis, with its emphasis on vision, the gaze and the mirror phase; or, put more generally, with its stress on all forms of input that have a mirroring or duplication function, and thus refer to our feedback loops with the environment, including our relations self–other, as well as our forms of (self)consciousness, identity and identification. The storage part would be the Unconscious, which retains the 'memory traces', while remaining open for new 'impressions'. The processing part, or 'programme', would be the psychoanalytic-therapeutic process, the 'talking cure' itself, understood as the combination of free association and what Freud in *The Interpretation of Dreams* called 'work' (data recalled across the different

21 See Thomas Elsaesser (ed.), *Early Cinema: Space Frame Narrative* (London: British Film Institute, 1990).

rhetorics of the Unconscious and its logico-linguistic operations, such as condensation, displacement, the interface of representability, and so on) to which the analyst applies the techniques of translation and transcription, or verbalization and visualization.

Since the two functions of perception and memory for Freud come together only in the virtual space which is the Unconscious, cinema would need to have the equivalent of a media-Unconscious, a virtual space in which its perceptual optical data (the inscription of a perceiving subject) and its mnemonic trace (the presence of an object) can come together. Until now, theories of cinema have tended to oscillate between these two possibilities, either privileging perception and the spectator in semiotic and psychosemiotic theories, or privileging the object and its material traces in realist, materialist or 'ontological' theories. Perhaps one of the many seductions that Deleuze's theory of the cinema has for us today is that it seems simultaneously to sidestep these alternatives and, with its 'the brain is the screen' formula, to offer a way of understanding the cinema as both perceptual fact and material fact.<sup>22</sup>

But this is where Freud's conceptualization of time – if we follow Doane – would put a serious obstacle in our way. Time, for Freud, is the protective–compensatory effect of a subjective experience of intermittence, of rupture; a failure and loss of signal, even, occurring in the transition between recording and storage. The indexical–iconic data of perception cannot be joined with the data of 'time' (understood as the experience of 'narrativized' intermittence), so that time as *durée* (in Bergson's sense) is not its 'primary' state but, in the time-based arts (including cinema), divided between *chronos* (linear time) and *kairos* (the moment of recognition – *anagnorisis* – and of 'closure'). It is therefore only logical that Deleuze should not refer to Freud. And yet he might have called upon Marey rather than Bergson. For, as Doane points out, whereas Freud conceives of time as the effect of 'this discontinuous method of functioning of the system perception-consciousness' and thus as a 'subject-effect', Marey tries to capture time as pure process – as the movement of objective 'becoming' – when he devised so many different methods of recording natural phenomena, from the human heartbeat to the gallop of horses, from the phases of motion of the wings of bees and birds to the patterns of turbulence formed by air and smoke as hot and cold air come into contact with each other.

In all these phenomena, Marey attempted to let movement and motion, vibration and oscillation, 'write' themselves without the intervention of the human hand or any kind of symbolic notation such as language. And unlike Muybridge, whose recordings of movement were generated by the intermittence of different still images sequenced one after another, Marey tried to capture movement without any 'loss' or intermittence, producing the famous blur or continuous line, by abstracting as much as possible from the plenitude of sensory data. For instance, he reduced the human body to a set of luminous dots, which yielded the familiar motion graph against a black background.<sup>23</sup> We might say that while Muybridge,

22 Gilles Deleuze, 'The brain is the screen: an interview with Gilles Deleuze', trans. Marie Therese Guiris, in Gregory Flaxman (ed.), *The Brain is the Screen* (Minneapolis, MN: University of Minnesota Press, 2000).

23 On Marey, see Marta Braun, *Picturing Time: the Work of Etienne-Jules Marey, 1830–1904* (Chicago, IL: University of Chicago Press, 1992).

- 24 Mary Ann Doane, *The Desire to Desire: the Woman's Film of the 1940s* (Bloomington, IN: Indiana University Press, 1987); *Femmes Fatales: Feminism, Film Theory, Psychoanalysis* (New York, NY: Routledge, 1991).

as a photographer and artist, strove to use chronophotography as a means of 'Gestalt recognition', Marey's method as a scientist was closer to 'pattern recognition'. But as Doane also notes, Marey's attempts to capture movement as a full continuum, and thus to record time without intermittence, were as much haunted by failure as was Freud's attempt to imagine an apparatus that could combine Perception-Consciousness with memory-trace recall without inventing 'repression', the 'Unconscious' and the hermeneutics of 'dreamwork'.

Doane's previous books, such as *The Desire to Desire* and *Femmes Fatales*, have been required reading in film theory classes all over the world.<sup>24</sup> A question that thus might arise is how and where her work in feminist film theory and on female subjectivity intersects with this interest in early cinema, and even precinema. One possible answer could be sought by returning to the origins of psychoanalysis and the fact that – as all feminists have noticed – Freud's initial patients and the subjects of his first case histories were predominantly women. In Doane's analysis of the representation of psychoanalysis in Hollywood cinema, one of the strongest motifs is the medicalization of femininity, and the inevitable erotic entanglements ('transference') between doctor and patient that seem to accompany the representation of psychoanalytic therapy – as if female subjectivity itself were the pathology that psychoanalysis set out to cure, for the benefit of patriarchy.

Against this medicalization of women in mainstream Hollywood, our combined efforts to present Freud as a media theorist might allow us to rework this trope once more by suggesting that Freud can also be understood as having not so much medicalized female subjectivity as 'medialized' women. This is one of the abiding subjects of a third thinker who has commented extensively on the 'Mystic writing-pad', but whom I want, by way of conclusion, to introduce in the context of yet another possible, but unlikely, contemporary of Freud. The commentator is Friedrich Kittler, and the perhaps unexpected contemporary is Bram Stoker's *Dracula*. Since, there is no need to highlight the abiding affinity of cinema with the *Dracula* figure as the archetypal embodiment of the uncanny undeadness and inbetweenness of cinematic life and its preservation, reanimation or storage, I want to draw attention to Kittler's take on *Dracula*, Bram Stoker's 1897 novel, rather than, say, F.W. Murnau's film *Nosferatu* (1921). Kittler reads the novel as a commentary on the media origins of psychoanalysis at just about the same time as its principles and first therapeutic practices were being formulated by Freud. For Kittler, *Dracula* is a creature driven not by desire but by some other force and energy: that of a technical media revolution, as it has impacted the domains of information and communication. As such, the Count may be the only original and authentic myth that the age of mechanical reproduction has produced; so that *Dracula* stands for the eternal repetition of mechanical inscription (*die endlose Wiederholung durch automatische Aufzeichnung*<sup>25</sup>) which

- 25 Friedrich Kittler, *Draculas Vermächtnis* (Leipzig: Reclam, 1993), p. 12; translation in John Johnston (ed.), *Literature, Media, Information Systems: Essays* (Amsterdam: G+B Arts, 1997), pp. 50–85.

26 Friedrich Kittler, *Discourse Networks*, trans. Michael Metteer, with Chris Cullens (Stanford, CA: Stanford University Press, 1990).

has entered the western world with the typewriter, the gramophone/phonograph and the cinema.

Apart from his book *Gramophone, Film, Typewriter*, Kittler is best known for a work called *Aufschreibsysteme 1800*, translated into English as *Discourse Networks*, in which he presents a reading of German Romantic poetry as the consequence of new media technologies, notably the widespread alphabetization undertaken by Prussian school reform.<sup>26</sup> This put woman at the centre of a double regime: in the figure of the mother she inducted the male child into discovering, through silent reading, a new form of inwardness and subjectivity; and in the figure of the female reader she helped create the artist–poet, with his pen as the embodiment of a form of masculinity that impregnates and engenders through paper and ink, and by extension through writing and print. Kittler’s thesis is that literature as we know it in the modern age is the result of the coming together of two technologies and a universalizing educational discourse: the postal system had to be joined to the printing press, and the literate mother had to be joined to public education.

In Kittler’s analysis, feminist film theory finds itself differently historicized and given an ideological function beyond the emphasis on specularly, vision and the male gaze. By extension, the novel *Dracula* tells the story of how women themselves become media, how their susceptibility and sensitivity is, in the middle of the nineteenth century, discovered as a resource and a raw material. Charcot, Janet, Breuer, Freud: for Kittler they all line up as men who ‘harvest’ the mediatic powers of women; and it is Stoker who calls their bluff, as it were, because he exposes the patriarchal mechanisms underlying their psycho-physiological analysis, while at the same time his narrative offers the imaginary solution that allows Victorian/western society to live with this shocking realization and its real contradictions. In the contrasting and complementary figures of Wilhelmina (Mina) and Lucy, and in the descriptions of their symptoms, Stoker makes hysteria, paranoia and somnambulism appear as embodiments of electromagnetism and the human equivalents of wireless transmission.

Stoker was no doubt aware that Marconi had patented his wireless telegraphy system in 1896, even if he could not have known that in 1898 Marconi would successfully transmit radio signals across the English Channel. On the journey back to Transylvania in pursuit of Dracula, Mina serves the men as both medium and messenger: that is, thanks to her vampiric contact with Dracula, she is able to receive the transmissions emanating from him on the high seas and on land, helping to track his (global) position. Being familiar with a technically advanced symbolic encoding device, the typewriter, she records the ‘messages’ sent by Dracula as they travel to the Carpathian mountains, acting as a kind of moving (wireless) receiver *and* recorder. As Kittler drily remarks, in the 1890s women had just two choices: to become either hysterics or typists. Mina, after the demise of Lucy, is both.

27 See Kittler, *Draculas Vermächtnis*, p. 96. Kittler in this respect contradicts, but also complements, Stephen Heath, 'Cinema and psychoanalysis: parallel histories', in Bergstrom (ed.), *Endless Night*, p. 46.

Psychoanalysis and cinema, it would seem, were born together but have been on a collision course ever since. Or rather, they compete with each other, and in the process produce the famous 'excess' or surplus that, in various formulas (from 'woman as excess' in musicals, film noir and melodrama, to violence as special effect, body horror and pornography) with which film studies, too, has been trying to come to grips. Psychoanalysis and cinema are thus the enemies and rivals, who – in accordance with the double negative of 'my enemy's enemy is my friend' – nonetheless come together at the close of the nineteenth century, in order to put an end to literature and the literary author.<sup>27</sup>

In Kittler's scheme of things, technological media and psychoanalysis thus compete for literature's legacy, trying to take on the various information processing tasks and cultural memory mandates that used to be literature's monopoly: the recording, storing, repeating of experience, in sounds and images, text and traces, embodied or imagined, manifest as physical symptoms or as phantom sensations. Where film and cinema (or the audiovisual media generally) accomplish such recording by mechanical means and on synthetic material supports, psychoanalysis has retained the body and the voice as its 'natural' material support. Yet it, too, tries to 'automate' the recording process as much as possible through free association and the seemingly esoteric, but strictly controlled, body of techniques that make up 'analysis'.

In three different epochs, then, women have been crucial in 'naturalizing' a new media technology as well as problematizing its effects on gender relations. If, around 1800, women were essential to the idea of literature as a profession and an autonomous practice, it was the female body and voice that introduced and 'naturalized' cinema around 1900 (if we can accept the reading of Stoker's *Dracula* as an allegorical prefiguration of audiovisual media). The question with which this leaves us is whether, around 2000, a return to Freud – now as media theorist rather than medical therapist – can tell us something about the 'Unconscious' of our current media technologies. In the emphasis on such traditional attributes of the female mind as 'parallel processing', 'distributed attention' or 'collaborative intelligence', the digital media may find themselves naturalized by virtue of being 'feminized': perhaps in order to keep at bay – and to control – another form of the undeadness of data, the 'too much' of stimuli that threatens the very possibility of perception and comprehension, and thus the very manageability of processing.

Where, then, one is tempted to ask, is the Freud of the twenty-first century who tells us about the 'Unconscious' appropriate to the information media age? To encourage us to think about this further, I shall end with a quotation from Freud's *Beyond the Pleasure Principle* that uncannily predicts one of our current predicaments: that our senses are mere 'samplers' of data. 'It is characteristic of [the sense organs] that they assimilate only very small quantities of the outer stimulus, and take in only samples of the outer world; one might compare them to antennae

which touch at the outer world and then constantly withdraw from it again.'<sup>28</sup> Freud the media theorist may turn out to be someone who increasingly speaks to our age – even to some for whom psychoanalysis now appears so discredited.

For if media archaeology is ready to step into the breach that has opened up between a film history (or a television history) that is no longer credible for the twentieth century and a media anthropology that is not yet feasible for the 'media convergences' or even the 'amediality' of the twenty-first century, then a figure such as Sigmund Freud – precisely because of his 'negative epistemology' about technical media and his sceptical insistence on persistent problems of memory in relation to consciousness and communication – can stand as a milestone and a marker on a road that is neither direct nor linear in either temporal succession or topological extension.