TIME, MEMORY AND THE PHILOSOPHICAL DISPOSITIF OF CINEMA: THE MIRRORED METAPHOR OF CULTURE AND TECHNOLOGY

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I Introduction
This paper concerns the issue of metaphor as a material cultural manifestation of ingenuity by addressing the way technology functions as a metaphor for cultural aspirations as in the case of the early cinematographical apparatuses. The main argument that underpins this paper is that in the flow of material metaphors that prompt theoretical, poetic and scientific visions lie the roots of a widespread and dubious agency that is invested in matter. A paradigmatic example of this process can be seen in the histories of the invention of moving image technologies and the philosophical discourses that they provoked. Drawing on examples from early projection technologies and some aspirations of the physiologist Étienne-Jules Marey, this paper proposes an interpretation of chemical, optical and engineering solutions to technological problems as provisional texts that, once in the public domain, became consolidated as both a practical adjunct to, and a metaphorical expression of, cultural aspiration. Some of these aspirations can be retrieved by including the perspective of the audiences in their very experiences of the cinematic séance. In doing this, the early cinema can be understood as a philosophical dispositif and as a very precise double of these preceding

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1 This paper has been developed as part of two interconnected presentations at the GCSC conference “Metaphors Shaping Culture and Theory” in conjunction with Michael Punt, whose parallel paper follows in the next chapter. These consecutive presentations proposed that a useful way to approach the metaphorical dimension of images and visual culture is to separate the symbolic from the material investment of culture in technological artefacts, objects and techniques, which are often discussed in ways designed to hide these immaterial affordances.
inspirational, imaginary processes, in that it replicates both the problem and problematic of matter and memory in a metaphorical form. By revisiting Henri Bergson's philosophical take on these issues, it will be argued that the cinematic apparatus exemplifies a synthesis of time flow and movement analysis and mirrors two contradictory models of memory: as database of the past in its material manifestation and as a forward moving momentum contemporaneously formed with, and impinging on, perception. This perspective will attempt to approach the imaginary dimensions of cultural metaphors in technology (as they relate to the early cinema and Michael Punt has coined as the ‘technological imaginary’\(^2\)) by situating the audiences’ aspirations within the perceptual processes of the cinema experience. In this way, the creative dynamisms that constitute the metaphorical inscription of cultural aspirations in the very material of technological procedures and artefacts (in particular as they are implied in the various interpretations and imaginary dimensions of the cinema) can be located in the two crucial vectors that constitute the perceptual engagement of the audiences: the experience of time and the activity of memory.

When various optical recording and projection devices, which had been developed within the framework of positivist science, entered the public domain in the late 19th century, they were frequently advertised with reference to the supernatural, as it was particularly the case with apparatuses in connection with the emerging cinema.\(^3\) While the Lumière’s chose the name Cinématographe\(^4\) for their device with reference to a scientific meaning

\(^2\) Michael Punt proposes in *Early Cinema and the Technological Imaginary* (Trowbridge, Wiltshire: Cromwell Press, 2000): p. 20: The ‘technological imaginary’ “[…] refers to ways in which technology was thought about both in terms of its hardware and as a representation of cultural aspirations — imagined and actual.” It “… provides a framework to factor in both rational and irrational ideas to the processes of invention in order to accommodate and consolidate the range of understandings that surround new ideas. Without the inherent negotiability of the concept of the technological imaginary, it becomes difficult to account for technology as anything other than a hard cultural determinant — something it evidently is not.”

\(^3\) This apparent connotation of the supernatural preceded the cinematographic technologies. Sir David Brewster for example, who had vehemently rejected connections with spiritual realms in favour of the scientific rationalist paradigm regarding optical illusions, nonetheless used analogies with supernatural qualities as teasers in advertisements for stereoscopes in 1858. See Tom Gunning, “Phantom Images and Modern Manifestations: Spirit Photography, Magic Theater, Trick Films and Photography’s Uncanny,” in: *Fugitive Images: From Photography to Video*, ed. Patrice Petro (Bloomington: Indiana University Press, 1995): p. 47.

\(^4\) The Lumière’s renamed what originally was called ‘projecting chronophotographe’ to ‘Cinématographe’ when they patented their apparatus in February 1895. The original name drew on Étienne-Jules Marey’s Chronophotographe of which the Lumière’s possessed a proto-type; they were well connected with Marey as they supplied his institute with photographic plates. See Marta Braun, *Picturing Time. The Work of*
— the ‘inscription of movement’; on a more mundane level, numerous associations with the survival of the dead or the re-animation of life were explicitly reflected in the names of devices such as Robert Paul’s Animatograph, Jenkins’ Phantascope, later renamed Vitascope, or Skladanowsky’s Bioskope. Although the devices were usually advertised by featuring the technological mechanism, the advertising rhetoric often invoked spiritual references or connotations with ‘magic’, such as for example Randall Williams’ Grand Phantascopical Exhibition, or the Kinemacolor posters displaying angels and floating women. Even the Lumières’ Cinématographe made no exception; although it was advertised as scientific apparatus, the announcements were frequently accompanied by poetic descriptions. Every novelty had to have something ‘extra’ — a term that was also used to describe the ghostly apparitions on spirit photographs. Thomas Alva Edison was at the forefront to induce technology with spiritual aspirations, especially with his belief in the survival of the individual personality after death, which was consistent with the Victorian cult of death as well as with the popular fascination with the cults of ancient Egypt.

Étienne-Jules Marey (1830-1904) (Chicago University Press, 1992): pp. 193-194. Marey himself commented on this novel solution of projection technique: “[This invention], under the name Cinématographe, attained considerable success, and its name, which is only that of a particular chronophotographe, will long remain associated in memory with all syntheses of movement.” (Emphasis in the original) Cited from Braun 195.


6 Colin Harding and Simon Popple 8.

7 Gunning 51; see also John Durham Peters, *Speaking into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 1999): p. 98. Peters illustrates how communication and interpersonal contact between humans or between humans and spirits were inspired by, or became associated with, innovative technological apparatuses and communications technologies, such as the notions of: “[…] making contact, tuning in or out, being on the same wave-length, getting good or bad vibes.” Cited from Peters 5.


9 Antonia Lant explores the complex interrelations between the emerging cinema and references to the preservation in time like mumification, their chemical treatments, the cinema as necropolis, film text as hieroglyphics and the aspired revelation of mystery, the fantastic and visualisation of (especially female) sexuality. See Antonia Lant, “Haptic Cinema,” *October* 74 (1995): pp. 45-73 and “The Curse of the Pharaoh, or How cinema Contracted Egyptomania,” *October* 59 (1992): pp. 86-112.
apparatuses of the emerging cinema provided novel platforms for the constructed visibility and resurgence of the dead, spirits, and other ghostly apparitions; so much so that it was considered to bring them to life and in this way exemplified the fascination with death and bodily transcendence. Analogies and metaphors drawing on death and resurrection were not only frequently used in advertisements announcing novel cinematic devices, but also in film content, most notably by Georges Méliès and Ferdinand Zecca\textsuperscript{10} who both featured the imagery of resurrection and phantoms\textsuperscript{11} in their fantastic apparitions and transformations. The apparent reassurance that both communities (rationalist and spiritualist) drew from each other was instrumental as one of the key attractions of the emerging cinema through a persistent suspicion of trickery that surrounded photography and a scepticism regarding the reliability of the photographic apparatus as scientific instrument. In this way the impact of the human affective participation with technology was seen as not necessarily a straightforward contract of cause and effect.

The interpretations of the photographic image became a focus of a number of pressing issues in the course of the 19\textsuperscript{th} century, most notably the crisis and redefinition of subjectivity in light of the shifting conceptions of time and its rationalisation.\textsuperscript{12} The detachment of vision from the body of the observer in the first half of the 19\textsuperscript{th} century, as Jonathan Crary argues, led to an approach to instrumentation that reconstructed and reinterpreted the disparity between the description and the actual experience.\textsuperscript{13} The original multiplicity of forms, contents and technological diversity, was progressively absorbed into the two main continuous forms of optical/chemical representation: the photographic and the cinematographic image. At the same time, although increasingly dismissed or neglected by science, within popular


\textsuperscript{11} Tom Gunning explores the metaphorical character of the “phantom” through an “ontology of mediated vision” in a discourse of visual culture by tracing the historical connotations of the term ‘phantasma’, in particular in the way it constituted an element of the cultural imaginary at a nexus between popular fascination with the otherworldly and pre-modern scientific metaphorical referents for perceptual phenomena. See Tom Gunning, “To Scan a Ghost: the Ontology of Mediated Vision,” \textit{Grey Room} 26 (2007): pp. 94-127.

\textsuperscript{12} For a discussion on the issue of time see Stephen Kern, \textit{The Culture of Time and Space: 1880-1918} (Cambridge, Massachusetts: Harvard University Press, 1983); see also Mary Ann Doane, \textit{The Emergence of Cinematic Time: Modernity, Contingency, the Archive} (Cambridge, Massachusetts; London: Harvard University Press, 2002).

culture the occupation with the ‘paranormal’ or ‘supernatural’ persisted, and this is visible in various forms of reception and referential connotations related to the emerging cinema and its technological dispositif. As a consequence the undercurrent of an occult, or less polemically a specific avant-garde, worked its way through the established canon of film form as popular metaphysical investigations, and has remained ever since as an important momentum even in mainstream cinema. This thematic trend with relevance to its reiterations in contemporary film culture — in reference to persistent mythologies, imaginative or so-called science fiction narratives, in a convergence with contemporary technology and science — defines the platform for the vantage of the present from which to investigate further into the spectators’ expectations, desires and involved cognitive processes, which, as it is proposed here, constituted the very drivers of the imaginary and metaphorical engagement of popular culture with technology.

The creative and imaginary dimensions that drove the scientific investigations into projection technologies in the first place and shaped their material outcomes and popular reception at the late 19th century, are particularly apparent in the scientific studies of movement and dynamisms of animate bodies and elements by the physiologist and engineer Étienne-Jules Marey. Marey’s visionary and innovative approach in the applications of technology to the studies of movement as a vital force demonstrates a significant challenge to instrumental realism and an invocation of the perceptual processes in the beholders.

Against the backdrop of the recognised limitations of the human perceptual apparatus in the course of the 19th century, Marey was a key figure in the pioneering of technologies as extensions of bodily functions and reliable graphing instruments for the analysis and synthesis of movement. He believed that technology offered a more perfect and capable extension of the human sensory system for a more detailed and quicker perception of kinema (Greek for ‘movement’) and the analysis of the vital functions, and consequently postulated the superiority of ‘technological perception’ over human observation. His occupation with the analysis of movements in the body (such as muscles and organs) and the particular requirement of the recording of very small time intervals of sometimes for the observer invisible movements led him to his method called chronography (writing in time), and the analysis of the vital functions, and consequently postulated the superiority of ‘technological perception’ over human observation. His occupation with the analysis of movements in the body (such as muscles and organs) and the particular requirement of the recording of very small time intervals of sometimes for the observer invisible movements led him to his method called chronography (writing in time), which, through the implementation of photographic techniques in the 1880s, he called chronophotography. Marey introduced the engineering solution of a slotted-disk shutter that masked the plate while it moved and exposed the plate when it stopped (which he also carried forward in his fixed-plate chronophotographic camera) in order to take more than one picture on the (glass)plates or celluloid film strips, which resulted in his well-known images of superimpositions of single postures in one frame. Set against a black background, he eschewed the single frame in favour of a selected time/space continuum.
Marey deployed the photographic recording devices usually in conjunction with his graphing instruments. In this way he was able to record a multiplicity of measurements in a continuous inscription of movement over time. Considering that he did not study movement in its visual expression alone, but also through sounds (for example pulse, beats within the body, insects’ sounds), frequencies, speeds and flows, the elimination of space in his set up clearly demonstrates that his main intention was to increase the perception of movement in relation to time through a continuous extension of the smallest measurable intervals. This created complex systems of sensors and wearable instruments for diverse measurements, integrated with the activities of the body of the subjects for capturing data from various kinds of kinetic processes, which in some ways anticipated current wearable technologies. Sometimes the studied subjects even produced the graphing inscription themselves through their movement in space; as in the example of Marey’s synoptical notations that expressed the graphical inscription of various gaits in an almost artistic manner similar to musical scores.14

Marey regarded movement as the effect of those forces that constituted the primary functions of life; in this sense his interest can be primarily located in the forces that drove movement. He constantly pushed the boundaries of the recordability of the physical expressions of these underlying (in themselves invisible) forces in his struggle to reduce the interstices between moments of apparent stability. In reference to his studies of human walking and running he explained: “The periods of contact are short, and separated from one another by intervals during which neither foot is in contact with the ground — a period of suspension.”15 In this respect he emphasised that “[…] one of the characteristics of running, and even of walking, is to maintain a continuous position of unstable equilibrium.”16

The material limitations of technology both liberated and also restricted Marey’s investigation in his lifelong quest to establish technologically based observation beyond ordinary perception as standardized scientific method for the discipline of physiology. He continuously worked on the perfection of technology, which appears probably most drastically in his motion capture technique called ‘Geometrical Chronophotography’, also referred to as *trajectoires squelettiques* or *l’homme squelette*.17 In this method, the surface of the object under observation was reduced to a fine white line or points, produced by a reflective metal or white paper strips, placed along the side of a black body

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15 Marey 8.
16 Marey 8-13.
17 Marey 60-61.
The images obtained reflected the movement exercised in abstract white lines against the black background, which according to Marey subordinated space to a more precise graphing of the aspect of time: “In the diagram thus obtained, the number of images may be considerable, and the notion of time very complete, while that of space has been voluntarily limited to what was strictly necessary.”

In Marey’s studies it is obvious, however, that neither the technology nor the images in themselves were of primary interest, but they served his scientific analysis and were continuously modified, refined and altered according to the requirements of the objects of study. By his relentless innovation he recognised the limitations of the provisional character of scientific knowledge and continuously readjusted the shifting boundaries of what was considered as knowable and accessible to the scientific method.

II Time

In his attempts to record duration rather than instantaneity, Marey understood time scientifically, as mathematical, measurable and homogeneous quantity. In contrast, the contemporary, influential philosopher Henri Bergson, originally trained in mathematics, extended the mathematical notion of time with his definition of *durée* (duration) as qualitative experience of time as we perceive it in action; this ‘real time’ for him was elusive to mathematical, scientific and intellectual treatment. In this way he shifted the significance of the term ‘t’ in equations of mechanics to an awareness of the impact of perceptual processes on the relativism of time as psychological quality. By frequently referring to the scientific method of movement analysis through instantaneous photography, Bergson critiqued the commonly confused concept of time, which he regarded as a fusion to be distinguished between an externalised quantity (science) and an internalised quality (metaphysics). According to Bergson, the only dimension that could be actually measured was the space traversed — in other words ‘instances.’ From this perspective of time, chronophotography in itself, detached from the wider scope of Marey’s oeuvre, merely took the external passages of bodies moving through space into account, as they can be observed from an externalised point-of-view. According to Bergson, it is instead in our experience that we internally conceive of continuous movement and time as a quality rather than a measurable quantity. In his view duration (*durée*) can only be perceived internally: “[…] for the interval of duration exists only for us and on accounts of the interpenetration of our conscious states.”

These internal states of consciousness permeate each other, which constitutes a sense of duration and

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18 For illustrations and context see Marey 60; see also Braun 83-4, 94-95, 98-103.
19 Marey 60-61.
only when they are ‘measured’ and interpreted (for example through language), the whole splits up into single units and time is projected into space.

Analogous to the conception that every spectator sees a film in slightly different ways, Bergson proposed that the heterogeneity of perspectives that split the whole into parts (as in a textual analysis of chronophotography) stood apart from the integrity of the object perceived in duration. He commented:

[…][I]t is movement which is anterior to immobility, and the relation between positions and a displacement is not that of parts to a whole, but that of the diversity of possible points of view to the real indivisibility of the object.\(^{21}\)

Marey’s superimpositions of single instantaneous attitudes as a simulation of duration — a synthesis in a symbolic way — expressed his recognition of the representational constraints of instantaneous photography. The movement that had to be imagined made them appear as if merging into one whole — in other words, they appeared as if representing simultaneity. This exemplifies among other things, why Marey continued to combine the analysis of photographic images with his other graphing instruments in order to measure the time interval as a whole uninterrupted momentum in a single and legible representation of the various forces at work. It is an aspect that is unavoidably overlooked when interpreting his chronophotographical images solely through a textual analysis in their apparent single heterogeneous states. Marey indeed recognised and anticipated the interpretative potential of his images, and from the perspective of his exclusive scientific endeavour, he made very clear in his comments on movement synthesis that: “[…] it is useless to attempt to gain a knowledge of the successive phases of movement, by examining the successive photographs of a consecutive series[...].”\(^{22}\) In contrast to Bergson, however, the space for reflection and interpretation to him was an unavoidable fallacy of perception, which he sought to overcome through continuous technological improvement. Rather exceptionally he even referred on one occasion explicitly to the faculty of perception in terms of affordance, and by this, he accommodated the dimension of imagination. In this way he can be said to have sanctioned some aspects of Bergson’s philosophy by expanding the scope of his own investigation. This is for example evident in his description of how, in his view, chronophotography superseded ordinary perception. Marey proposed:


\(^{22}\) Marey 254.
Although chronophotography represents the successive attitudes of a moving object, it affords a very different picture from that which is actually seen by the eye when looking at the object itself. In each attitude the object appears to be motionless, and movements, which are successively executed, are associated in a series of images, as if they were all being executed at the same moment. The images, therefore, appeal rather to the imagination than to the senses.

Marey’s main pursuit to study the very complexity of vital forces that drove movement beyond the physical form remains an underexplored dimension of his work, which became even more explicit toward the later part of his life, in his studies of forces that in themselves remained invisible. His focus turned from the moving subjects to the media or the elements in which they moved, especially in his experiments that made the invisible movements of water and air visible. In these attempts Marey shifted away from physiology and moved more into the terrain of physics as he created wind tunnels for visualising airflow, and where he had previously studied the movement of water animals, he modified the tanks to trace the movement of water itself. Some of the most extraordinary graphic examples of these investigations into the invisible are Marey’s studies of smoke trails, produced by obstacles attached to his *Machine à Fumée* — a construction that by 1901 allowed 48 different trails of smoke to be processed. He was especially interested in the observation of small air currents around plain figures of different shapes, which relayed back to his earlier research into aquatic locomotion and his studies of aerodynamics.

This intrinsic concern with the invisible and with dynamism can also be retrieved in some of the applications and interpretations of Marey’s legacy in the early 20th century avant-garde arts movements, but also featured in certain representations in the popular entertainment during his life-time. There is for example a traceable connection between Marey’s studies of the lemniscate in insect flight or the undulating movement of aquatic animals and the dynamic movements of the popular dancer Loïe (Marie Louise) Fuller in her *Danse Serpentine* (Serpentine dance). The famous dancer and actress brought her extraordinary movements and innovative application of light and colour in her skirt dancing to the attention of artists in the Paris theatre *Folies-Bergère*, who shared an interest in dynamism and movement over time (e.g. Toulouse-Lautrec, Jules Cheret and Auguste Rodin, in whose work she also featured as a model). Her movements evoked similar shapes of the

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23 Marey 304.
24 Fuller’s dances have frequently been captured in early movies, as in the Lumières film from 1896 with the title *Danse Serpentine*. She also appeared in many imitations around the world, such as those such as those captured by W.K.L. Dickson in 1894 in
figure Eight, which Marey had found in his studies of the up-and-down impulse of an insect’s wing’s movement, which was distorted by air resistance and wind influence due to its unequal flexibility and consequently created a double loop (lemniscate). Most importantly, however, her movements featured an intense dynamism that Marey similarly sought beyond the study of the expression of movement, comparable to the art-historian Aby Warburg’s contemporary study of motion beyond the appearance of the figures in the iconography of the image.

Marey’s interest in invisible forces beyond the appearance of movement seems to intersect with the psychical dimensions of the beholders in both the experience of movement as duration during execution and the perception of movement during the synthesis of his movement analysis exemplified in his projection technologies. Although he addressed movement explicitly beyond the mere shift of a body in spatial coordinates in relation to time, he only implicitly addressed time as an experienced activity in duration within the perceiver (of both the actual movement and the technologically enhanced mediation). These two movements, which significantly contribute to the understanding of the cinema as a philosophical dispositif, have also been addressed by Warburg in his Mnemosyne Atlas.26 In a certain sense Warburg’s significant intervention appears to have extended some crucial aspects of Marey’s underlying conceptions and met those objectives in a cultural historical context of art in his transference of movement to an inner principle which he saw no longer as an external force — as the embodiment of life in motion — but as the psychology of the interior. The spaces in-between the perceived manifestation of matter, to which Warburg referred to as Andachtsraum or Denkraum der Besonnenheit (space for reflection) in his method called iconology of the interval, have been anticipated by Marey’s method of the graphical inscription of time and projection technologies in which the scientific intentions and the imaginary dimensions converged in the perception of the beholder.

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25 Marey 226-239.
28 The interconnections between the work of Étienne-Jules Marey, Henri Bergson and Aby Warburg have more fully been elaborated in Martha Blassnigg, Time, Memory, Consciousness and the Cinema Experience: Revisiting Ideas on Matter and Spirit (Amsterdam: Rodopi, 2009).
III Memory

A crucial link with the internalised processes of movement in the participatory engagement of the beholder has been recognised in the study of memory as cognitive faculty that appears to swing between external spaces and imagination, between the concrete and the metaphorical, or it could be said, between fact and so-called fiction. Bergson identified memory as the most tangible element in the interiorised forces of what can be conceived as a forward momentum of time in duration. He exemplified how memory extends into the present in a continuous recycling and entanglement with the processes of perception. By this he argued against theories that saw perception as mere projections of internal states, and emphasised the partial coincidence of the moment of pure perception in the object to be perceived (as an externalised perceptual process of extended consciousness) with the simultaneous impinging of memories from the past into the present. He explained: “These two acts, perception and recollection, always interpenetrate each other, are always exchanging something of their substance as by a process of endosmosis.”

29 These two states, according to Bergson, are commonly mixed up and undifferentiated, regarded as a difference in intensity and not in kind. He attempted to illuminate this difference by assigning to pure perception a specific time quality called durée. Bergson proposed:

Pure perception, in fact, however rapid we suppose it to be, occupies a certain depth of duration, so that our successive perceptions are never the real moments of things, as we have hitherto supposed, but are moments of our consciousness. Theoretically, we said, the part played by consciousness in external perception would be to join together, by the continuous thread of memory, instantaneous visions of the real. But, in fact, there is for us nothing that is instantaneous. In all that goes by that name there is already some work of our memory, and consequently, of our consciousness, which prolongs into each other, so as to grasp them in one relatively simple intuition, an endless number of moments of an endlessly divisible time.

30 By defining memory as the point of contact between consciousness and things, between the body and the spirit, Bergson proposed that memory did not consist in a regression from the present to the past, but on the contrary, in a progression from the past into the present. The past in this sense is a

30 Bergson 69-70.
potentiality, which might actualise again and turn recollections into perceptions once more. Bergson described this movement as follows:

We start from a ‘virtual state’ which we lead onwards, step-by-step, through a series of different planes of consciousness, up to the goal where it is materialised in an actual perception; that is to say, up to the point where it becomes a present, active state — up to that extreme plane of our consciousness against which our body stands out.31

In Bergson’s view, the past is no less intense than the present, since the idea does not derive from a perception, but on the contrary, our perception derives from our ideas; in this sense: “[…] the essential process of recognition is not centripetal, but centrifugal.”32 He put it even more strongly that memory does not emerge from matter, but quite the contrary, he proposed that: “[…] matter, as grasped in concrete perception which always occupies a certain duration, is in great part the work of memory.”33 Memory images are continually forcing themselves into the present in order to modulate habit, and, especially when directed by free will and choice, a greater variety of past experiences can shape ideas creatively in the actualisation of our becoming. The ‘spiritual’ dimension for Bergson is consequently not simply determined by the realm of the ‘virtual’ (multiple planes of consciousness, including the past), but is constituted by its actualisation through embodied action in the present and by its degree of the creative potential that sets out to mould matter. The spiritual, or it could be said the imaginary dimension, in this sense, is characterised by action and by choice. In this way Bergson did not conceive of memory as a purely imaginative realm, since its actualisation is always coexistent with the present moment of action of cognitive activity; nor is it to be situated in a material form or space to which the discourse of the very popular notion of the trace in the literature alludes to.

If we draw on this specific intersection of Marey’s and Bergson’s work, it becomes apparent that there is a crucial distinction to be made between objects of memory from, what Johannes Fabian called, “practices of memory”.34 In this we can allocate a necessary distinction between the metaphorical use of memory in the inscription, projection and retrieval of meaning through objects (or image content), and the practices of memory within consciousness that have to be regarded as dynamic processes, which like ‘virtual images’ constantly evade the confinements of material

31 Bergson 239-240.
32 Bergson 130.
33 Bergson 182.
manifestation. Through Bergson’s definition of ‘images’ as something in-between an object and its representation, Fabian’s notion of ‘memory at work’ can be extended into a broader spectrum of perceptual processes and relayed into a Warburgian treatment of images in their potential of affective dynamograms. In this sense Warburg’s notion of a ‘ghost story for adults’ (Eine Gespenstergeschichte für ganz Erwachsene) can be related to Bergson’s virtual in the sense that it constitutes a revival of past memories in the present, of an energy that not only persists but also continuously pushes evolution forward in multiple pathways and hence leaves traces in cultural forms. Bergson understood the virtual as the realm of l’esprit (mind) in the context of his study of memory that tends to re-conquer the influence it has lost by actualising itself in the present. He suggested that: “Consciousness, then, illumines, at each moment of time, that immediate part of the past which, impending over the future, seeks to realise and to associate with it.”

Bergson referred to this process of recollection as a continuous recirculation of memory-images in order to strengthen, enrich and complement perception with ever-greater details, a constant process of recreation and reconstruction. He maintained that:

[…] every attentive perception truly involves a reflection, in the etymological sense of the word, that is to say the projection, outside ourselves, of an actively created image, identical with, or similar to, the object on which it comes to mold itself. […] [R]eflective perception is a circuit, in which all the elements, including the perceived object itself, hold each other in a state of mutual tension as in an electric circuit, so that no disturbance starting from the object can stop on its way and remain in the depths of the mind: it must always find its way back to the object from where it proceeds.36

By situating the locus of the heritage of images as well as the metaphorical mirroring of culture in technology within the perceptual processes of the beholder, a productive negotiation with the metaphorical interpretation of the ‘technological imaginary’ can take place and recuperate from technology and image techniques those dimensions that led to their creative production in the first place. By applying a dynamic approach to memory processes in time, it becomes transparent how the cinematic apparatus unifies the mechanical analysis of movement with the projector’s synthesising, forward moving mechanism through an interactive dynamism of time-flow in the spectator’s experience. In this the cinematic dispositif mirrors two contradictory models of memory: as database of the past (the celluloid filmstrip) and as a forward

35 Bergson 150.
36 Bergson 102-104.
moving momentum within the spectator impinging on perception interfacing in the screen. When the necessity for action (as inscribed in body-memory) ceases then, so Bergson, the virtual can infiltrate and actualise the imaginary and creative potential of the mind and grasp perception “in one relatively simple intuition”. Memories, recollection images and imagination: the seeming inexhaustibility — the perpetual mobile — of the cinematograph in this way becomes a metaphor for consciousness or spirit (l’esprit — the mind) which is not causally linked to the limitations of body memory in action but finds a line of flight in imaginary extensions and aspirations — the very potential for future action.

In this view the culturally persistent animistic metaphors of the technology in cinema can be understood as a technological imaginary that liberates the creative potential of the mind in the reception of audio-visual media. When technology is regarded as an open text within a dispositif of complex forces rather than as a closed material manifestation, the metaphor becomes a tactic to accommodate the immaterial dimension as a temporal solution in the heterogeneous interpretations of the material. This dimension in the wider discussion of the uses of technology is commonly either masked in the discourse of materialism that takes technology at face value, or detached from its necessary material carrier in discourses of the digital image. By including the perspective of the audiences’ cognition in their very experiences of the cinematic séance, the cinema reveals its potential as a philosophical dispositif and can be understood as a very precise double in that it replicates the problem and problematic of time, matter and memory in a metaphorical form.

Works Cited


37 Bergson 69, cited earlier.


