The filmed body and the cinematic gesture: Zoe Beloff’s revisions

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In cinema, techniques of the body are always articulated together with the setting of its recording. Cinema is an invention of the nineteenth century and is part of the machine age. In this regard, we might recall Walter Benjamin’s text on the mechanical reproducibility of the work of art, where he analyses the environment of the movie studio as if it were an industrial laboratory, requiring the actor to undergo a performance test. Through his analysis, the relationship between humans and technology in the film world appears as a kind of alienating device that destroys the aura actors possess in a theatrical context from their presence before a live audience. At the same time, Benjamin appreciates film’s analytical quality, a product of the camera apparatus that allows for changes in movement, scale, and point of view (enlargements, cuts, speeding up or slowing down the frame rate, isolating figures in the image):

The act of reaching for a lighter or a spoon is familiar routine, yet we hardly know what really goes on between hand and metal, not to mention how this fluctuates with our moods.[2]

Benjamin, therefore, is not only interested in alienation or the loss of aura engendered by the camera, but also in its power to reveal aspects of gestures and our relationships to objects. The question is then how to define the ‘play’ between the human body and the machine, an interaction that the cinema, like chronophotography, can display analytically.
If the possibility of delaying or decomposing had already interested philosophers like Benjamin, film operators and photographers who worked on the efficiency of labor, and those who had aesthetic aims for a long time before the digital turn, it is because image and gesture cannot be rendered entirely in verbal language: they belong, as Pierre Francastel has put it, to the realm of a formal thought. On the other hand, they reduce, as Laura Mulvey wrote, ‘the abstraction of language to bodily, material expressiveness’. Laura Mulvey states that with the arrival of DVD technologies, we can delay films and create ‘fragments that exist in limbo’: this kind of suspension not only brings the narrative to a halt, but also makes visible how a bodily gesture may occupy a specific cinematic time-space.

From this point of view, one could say that in cinema, the sense of gesture (linked to language) and its form (beyond language) is realised in a space in-between, a poetic space between the visible and the invisible, between an intelligible pattern and a sensuous appearance. Hence, the filmic gesture refers not only to the time-image (in Deleuze’s sense), but also to a ‘space-image’ that constitutes this poetical interval between the filmed gesture and the image.

We will discuss the historical and anthropological relation between human gesture and cinematic gesture in a theoretical framework that engages a form of dialogue, through analysis, with the artistic research presented by Zoe Beloff, a New-York based artist and filmmaker. In various film, performance, and installation works, Beloff has engaged, since the 1990s, with what some today might call ‘media philosophical’ or ‘media archeological’ approaches, insofar as she goes back to historical writings, techniques, and apparatuses at the turn of the last century in order to investigate the difference between the two modalities of discourse that Michel Foucault has named the ‘visible’ and the ‘speakable’ or ‘expressible’.

In this context of cultural techniques, techniques of the body, and their analysis, Beloff, in her multimedia installation The Infernal Dream of Mutt and Jeff (2011), offers a perspective that is both epistemological and aesthetic, centred on the problems of movement as the fundamental act of the cinema machine, and of the moving image as an instrument of psychosocial control of the human body. In an environment of technical objects and images, this installation presents a series of ‘found’ films, varying their reuse and their mode of projection: the films are shown as is (for example the film that gave its title to the work as a whole), through a film projector, or reworked and presented in tandem with their remake on two digital screens. The display of
the exhibition, as it was shown in 2012 at the Museum of Contemporary Art in Antwerp, recreates a mid-twentieth century film studio designed to produce industrial films. The set is presented as an open space, filled with props, cameras, projectors, tables, and scientific settings of gestural framing, different kinds of drawings and photographs, and it makes the visitor feel as if he or she is becoming an object of observation. The show’s archival films, which Beloff reworks, restages, and surrounds in both a critical and sensuous way, are a cartoon from the twenties and two archival instructional films demonstrating worker efficiency and the symptoms of contagious psychosis.

**Anthropology of techniques**

Up to this point, in the epistemological context of industry, science, and cinema, the term ‘technique’ supposes a certain affinity with the terms ‘machine’, ‘image’, and ‘gesture’. In her writings as well as in her artistic work, Beloff engages in a sort of dialogue with Walter Benjamin’s aesthetic writings about cultural techniques. On the one hand, we may follow the anthropological dimension of this approach that is more specifically interested in the conditions and dynamics of historical changes. If we try on the other hand to endow the *technical object* with an ontological status alongside the aesthetic object or the living being, as for example Gilbert Simondon suggested, the meaning behind its origins must be understood. Simondon’s philosophical project was to study the relationship humans have to the reality of technique, in particular from an educational and cultural perspective, given that he felt it was insufficient to use only economic concepts to account for the alienation characterising work: ‘In order to reduce alienation,’ he wrote, ‘one would have to incorporate within technical activity the aspect of work – of effort, of applying oneself tangibly through the use of the body – and the interaction with the functioning [of the technical object]: work must become technical activity.’[10]

What is a body when faced with a task to accomplish? If Simondon’s epistemological concern was to combine the sciences, philosophy, and aesthetics in a kind of theory of gestures – gestures associated with technical objects – and then to consider the result from an educational and cultural perspective, he essentially positioned himself as a result within a philosophical school of thought that is currently also connected to a discipline with an established history in France: the anthropology of techniques.[11] The realm shared by
the world of objects and that of humans is described by Simondon as a ‘mode of existence’.

**Marcel Mauss’ techniques of the body**

Some explicitly ‘cultural’ approaches have tried to answer the question concerning the specific nature of the link between humans and objects. In 1934, Marcel Mauss defined the *techniques of the body* as ‘the ways in which from society to society men know how to use their bodies’.\[12\] One of Mauss’ key examples is military marching, involving a synchronisation problem between English and French regiments whose respective gaits were ‘completely at odds’. Erhard Schüttpelz, in reconstructing Mauss’ notion of the techniques of the body and its reception by the German field of ‘cultural techniques’ (*Kulturtechniken*), insists, for his part, on the obvious link between media and the techniques of the body. In Mauss’ text ‘The Notion of Techniques of the Body’, Schüttpelz notes something of an omission, i.e. the parallel history of an entire epistemological field: chronophotography. Relying upon a text by Michel Frizot on Marey and the human gait, as well as works by others, Schüttpelz’ intent is to compare different areas of learning and practices, for example military training, physiology, colonialist ethnology, biology, and chronophotographic studies; in so doing, Mauss and Marey end up encountering each other in their respective investigations on walking. Schüttpelz stretches Frizot’s point somewhat here: for Frizot, walking is, to be sure, the ‘fixed point of all modern research in the ambit of instantaneous photography’,\[18\] but he does not say the reverse, that instantaneous photography is the starting point for all research on walking.

It must be added, however, that Mauss does mention film. His second key example is a personal memory. Having become ill in New York, he had spent time at a hospital where he observed the American nurses:

I wondered where previously I had seen girls walking as my nurses walked. [...] At last I realised that it was at the cinema. Returning to France, I noticed how common this gait was, especially in Paris [...] In fact, American walking fashions had begun to arrive over here, thanks to the cinema.\[14\]
This observation enables Mauss to refine his concept of *habitus*, those ‘habits’ that ‘do not just vary with individuals and their imitations’, he says, but most of all between societies, educations, proprieties and fashions, prestiges. In them we should see [...] techniques.[15]

In line with Mauss, Schüttpelz defines the techniques of the body as a given group of techniques of culture: techniques, he adds, that include all those ‘which consist of physical performance and treat the body as the primary object and primary means of technical performance’. [16] This is the perspective to which we have just alluded with the two approaches toward the camera apparatus as proposed by Benjamin: from the point of view of the filmed body, i.e. the actor, and from the point of view of the filming body, the ‘camera operator-surgeon’. We must add a third body to these two, one to which we will return: the ‘innervated’ body of the spectator, who is not linked to the apparatus of the camera, but to the environment generated by the projector.
Beloff’s world of objects

Zoe Beloff sets her installation *The Infernal Dream of Mutt and Jeff* at the intersection of cinematic and industrial production, aesthetics, and modernity. The curator of the show, Keagan Sparks, explains the origins of the project as follows: *The Infernal Dream of Mutt and Jeff* ‘is the title of a roll of film from the early 1930s that Zoe [Beloff] discovered at the Vrielynck Collection in Antwerp, an archive containing objects from the history of cinema’. The environment of the installation deals with this archive and does not present a cartoon studio (referring to the film roll from the early 1930s). Instead it recreates the setting of the educational films that Beloff has associated with the cartoon, in order to question industrial capitalism’s technical devices that serve to frame the human body’s productivity.

Beloff is engaged in a project that she herself calls, inspired by Walter Benjamin, ‘the dream life of technology’. She collects and puts on display vestiges of cinema – ‘discarded films, old projectors’ – and brings them back to life:

> I attempt to [...] set them in motion so that they might speak again, but differently. For me, the cinematic apparatus is not just machines but more importantly our interaction with them.[18]

The artist starts from the idea that objects themselves speak to us, and that they can come alive through a kind of communication between humans and things. She draws her inspiration in this from Walter Benjamin, who had once observed that in children’s games, the relationship to things might be on a mimetic level: ‘The child plays at being not only a shopkeeper or teacher but also a windmill and a train.’ From a phylogenetic perspective, the ‘mimetic faculty’ persists, according to Benjamin, by way of ‘nonsensuous similarity’ (i.e. writing): through this, language becomes the medium ‘into which the earlier powers of mimetic production and comprehension have passed without residue, to the point where they have liquidated those of magic’. For Beloff, cinema is probably the place where this archaeology of perception is most clearly visible and where mechanical and mimetic movement, as well as the moving images of bodies and things, give us access to those forgotten ‘powers of magic’.

The inspiration for the installation *The Infernal Dream of Mutt and Jeff* is a cartoon of the same name from 1930, featuring two *lumpen* from an American comic strip. Mutt and Jeff, freezing in their miserable hovel, are sent to Hell
by a devil, the only living creature they see in the street. In the text accompanying the installation, Beloff reads this descent into Hell, a world as cruel as the one inhabited by mortals, as an allegory of the stock market crash of 1929: ‘This is not naturalism’ she says, ‘but realism.’[21]

In the course of her research on the way in which social utopias were represented in films throughout the twentieth century, Beloff became particularly interested in industrial and scientific films, those portraying the movement of productive and unproductive bodies and thereby concurring with the utilitarian logic of scientific management, a.k.a. Taylorism. In a social and socioeconomic context where the rationalisation and synchronisation of gestures prevail, the cartoon, on the other hand, is like the slapstick film a genre where things can be endlessly made, unmade, remade, and especially made to move, beyond all classifications of figures and beings. In *The Infernal Dream of Mutt and Jeff*, Beloff presents these same divergent modes of representing the control and measuring of bodies.

Eisenstein had clearly seen the function of the American cartoon, embodied in the full-colour world of Disney:

Disney is a marvellous lullaby for the suffering and unfortunate, the oppressed and deprived. For those who are shackled by hours of work and regulated moments of rest, by a mathematical precision of time, whose lives are graphed by the cent and the dollar.[22]
Mutt and Jeff are figures that resemble the new mass audiences at the beginning of the 1930s. They are like Mickey Mouse, a figure that is, as Walter Benjamin has put it, a ‘dream of today’s people’. They represent a form of compensation. Esther Leslie has outlined the link between Benjamin’s ideas about the utopian value of Disney’s cartoon world, ‘where the alienating technological apparatus is banished by a reformulated nature, a nature permeated by technology, sign of the historicity of nature’. According to Leslie’s reading, Benjamin’s perception of technical existence – technical art, technologies of labour – draws him to the study of scenarios of animate nature and natural deeds as well as the utopian and critical re-presentation of the animation of machinery, with machines more animated than their operators.

In her installation, Beloff includes some of the ‘chronocyclegraphs’ of Frank Gilbreth, a disciple of Frederick W. Taylor. Gilbreth, with his wife Lillian, developed three-dimensional apparatuses enabling the recording of the luminous path of a gesture, with the idea that workers would then become ‘conscious of movement’. The artist transposes these images into wire sculptures in order to emphasise their aesthetic aspect: one of the chronocyclegraphs...
clegraphs even bears the title ‘Perfect Movement’. Beloff considers these discoveries as ‘utopian objects with real consequences’. [25] Gilbreth himself describes his object as follows:

> It is extremely difficult to demonstrate to the average person the reality and value, and especially the money value, of an intangible thing. The motion model makes this value apparent and impressive. It makes tangible the fact that time is money, and that an unnecessary motion is money lost forever. [26]

In *The Infernal Dream of Mutt and Jeff*, the magic of dreams is thus the magic of animated films that turn a devil’s tail, once it is torn off the demon, into a spear, helping the man to defend himself and giving him an advantage in his proletarian struggle. Concerning animals in Disney films, Eisenstein says that they ‘have the habit of stretching and shrinking [...] of mocking at their own form’, in a ‘triumph over the fetters of form’. [27]

![The Infernal Dream of Mutt and Jeff](image)

In the environment of her multimedia installation, Zoe Beloff combines this magical power that the improbable bodies in cartoons possess with scenes she herself directed, re-enacting excerpts from the educational films that participated in the long tradition, beginning in the days of Muybridge and Gilbreth, of industrial ‘motion studies’. The analysis she carries out on these films demonstrates what could be seen as their flaw, revealing the moment when, as objects, they go beyond serving the function for which they
were intended: where the film, instead of embodying the control of bodily movement, evokes the power of moving images.

‘The linguistic being of things is their language’, Benjamin says in a text on language, and he adds: ‘It is [...] the linguistic being of man to name things.’[28] For Benjamin, who developed a concept of ‘magical’ language, based upon his interpretation of Genesis, it is a question of ‘nameless, nonacoustic languages, languages issuing from matter’: ‘the communication of things is certainly communal in a way that grasps the world as such as an undivided whole’. [29] Zoe Beloff stresses this last point in her essay on *The Infernal Dream of Mutt and Jeff*, associating it with the previously mentioned observations of children playing at being windmills or trains. If people forget the power of magic, what good does it do them to acquire the mimetic faculty?
The artist, within the framework of her vast installation, decided to look into the phenomenon of movement as seen in some educational and scientific films of the 1950s, i.e. a utilitarian genre, in order to compare it to its usage in the fictional world of cartoons. In a space comprising these projections, the installation brings together the refuse of cinema: abandoned objects, as well as drawings, photographs, and sculptures, in order to emphasise the tangible aspects of an anthropological vision of cinematic techniques. In particular, through the effect produced by a triple projection, Beloff presents re-edited and reworked versions of two educational films from the early 1950s: *Motion Studies Application* and *Folie à Deux*.

Figs 7a, b: Zoe Beloff, The Infernal Dream of Mutt and Jeff (installation views, Site Gallery, Sheffield).
Re-enacting gestures, displaying the apparatus

The context of Beloff’s first comparison is based on a scientific model for the optimisation of occupational motions. The display in the installation progresses from Marey’s graphic method for recording movement and his chronophotographs, to Gilbreth’s cyclographic studies, to the artist’s own versions of the model, which emphasise its aesthetic value. Siegfried Giedion, in his monumental study *Mechanization Takes Command*, had already noted the resemblance of the timed recordings of gestures in *Perfect Movement* (1912), one of Gilbreth’s motion studies, to certain artworks, in particular paintings by Klee or Miró.[30]

Beloff picks and chooses moments from the portrayal of this ‘application of motion studies’ and reenacts them: scenes, for example, of a woman inserting pegs into holes in a board, in a similar way to how telephone operators of the time used switchboards to establish connections (inspired by the educational film *Motion Studies Application*); or another woman collating sheets of paper (as Gilbreth had shown in one of his ‘motion studies’). The original film used the split-screen technique to present the woman with the pegs twice: on the left, inserting the pegs unsystematically; on the right, inserting them efficiently. The scene ends with the victory of one worker over her alter ego, at whom she looks ‘condescendingly’,[31] as Beloff herself has put it in her essay. It is exactly in this sense that in her essay on the installation, Beloff refers to Walter Benjamin’s Marxist approach: she values his sensitivity toward the detachment the worker experiences with regard to the objects they produce, which results in the anthropomorphisation of things and the reification of people.[32]

In her text, Beloff refers to Benjamin’s notion of innervation, which is quite an interesting term, regarding bodily gestures in cinema. The concept is first associated with theories in psychoanalysis and neurology. In medical
terms, ‘innervation’ covers both the spread of nerve impulses to a given part of the body and the stimulation (of a nerve or muscle). In One-Way Street, and especially in his essay on surrealism, Benjamin presents a utopian vision of film as an art of the masses, bringing bodies together through the power of its technology:

The collective is a body, too. And the physis that is being organized for it in technology can, through all its political and factual reality, only be produced in that image sphere to which profane illumination initiates us. Only when in technology body and image space so interpenetrate that all revolutionary tension becomes bodily collective innervation, and all the bodily innervations of the collective become revolutionary discharge, has reality transcended itself to the extent demanded by the Communist Manifesto.[33]

According to Miriam Hansen’s analysis, this notion of innervation in Benjamin’s work is less connected to psychoanalysis (as is often assumed) than it is to contemporary concepts of the psychology of perception, the theory of the actor and especially the positions of Soviet avant-garde movements regarding biomechanics:

In line with ideas such as those Eisenstein was developing, Benjamin discerned a notion of a psychologically ‘contagious’ or ‘infectious’ movement that would trigger emotional effects in the viewer, a form of mimetic identification.[34]

Using the concept of empathy (Einfühlung) as it was envisioned by Theodor Lipps – who Benjamin had probably read as well – we could say that this form of it seems to interest Beloff, when in her installation she revisits an American educational film of the 1950s. She takes a critical approach to these ‘bodily innervations of the collective’, by exhibiting the effects of the historical process of modernity through the re-circulation of images.[35]

Fig. 9: Folie à deux (1950), film recycled by Zoe Beloff in her installation The Infernal Dream of Mutt and Jeff (video, triple projection, detail).
Archeological mode of analysis

The second comparison that Beloff presents in her installation does not concern the technical environment of the images, but their ‘reversal’ in an analytical, archeological mode (in the sense of Gilles Deleuze when, in discussing certain forms of essay films, he speaks of a ‘new Analytic of the image’[36]). The three-channel video expands the analysis of the post-Taylorist film Motion Studies Application by screening it alongside an educational film from the same period, Folie à deux. This second film presents the medical examination of a young woman, suffering from psychological problems and hyperventilating: she is accompanied by her mother who, like a double, demonstrates the same symptoms as her daughter. ‘Folie à deux’ is a clinical term used to describe this kind of contagious paranoia.

Within this triple projection, this part of the installation incorporates elements from the two films in a complex assemblage with both vertical and horizontal components. In addition, Beloff presents them with re-enactments she has filmed: as a whole, the projection echoes the archaeology of how bodies are visualised. ‘In both films’ she says,

people are represented as they were in the Gilbreths’ films, as simply the bearers of motion. One might call them objects, but the implications of seeing them this way are disturbing.[37]

The performance of the actress (Kate Valk) isolates the gestures of the paranoid daughter and those of her mother in a kind of revival or reincarnation, a carbon copy of the gestures of a body that is considered unwell. The comparison with the original brings out the finality of the initial recording: the exhibition of what is judged to be an abnormal movement.

In his famous text on the task of the translator, Benjamin called for fidelity to the original, by which he meant
the great longing for linguistic complementation. A real translation is transparent; it does not cover the original, does not block its light, but allows the pure language, as though reinforced by its own medium, to shine upon the original all the more fully.[38]

The way in which Beloff’s actress plays her role follows this direction: she works on what could be called, in accordance with Benjamin, the ‘pure language’ of gestures.

When I shot a third film to create a dialogue between Motion Studies Application and Folie à Deux, I tried to give objects the opportunity to lead their own lives, and I did not know until the moment of shooting what exactly they would do. The actor followed the Gilbreths’ instructions but mimicked the industrial films too far, with a mad excess.[39]

The idea is then to foreground that same schema of visibility that judges gestures as inefficient or unhealthy, through a focus on gestures and gazes.

Techniques of the body, cultural signs, and mechanisms of power

During the nineteenth century, this connection between studies of techniques of the body and medical research grew much closer. As Thomas A. Sebeok, among others, has pointed out, Sherlock Holmes was based on Dr. Joseph Bell of the Royal Infirmary of Edinburgh, who was not only able to give diagnoses of illnesses on the basis of symptoms, but could also determine the line of work or the social origins of a person from their body, their clothes, or the way they walked.[40] In the context of film, Tom Gunning has explained that Bell’s (and Holmes’) method, with which the signs of class may be detected, has been transformed through the increasing pace of modern life, passing this kind of intelligibility ‘below the threshold of immediately recognized conventional signs to reach the level of unintentional – and often unrecognized – symptoms’. [41] If film is the medium that records these kinds of undetectable signs, it also becomes an environment that produces mythologies in Roland Barthes’ sense, transforming the meaning of cultural or historical signs into natural or biological facts.

When Beloff, in her installation, associates the female body of the actress with the male voice of the ‘original’ narrator, she exposes the artificial dimension of these so-called scientific observations. The first thing she suggests
through this is an idea close to André Leroi-Gourhan’s anthropology of techniques, including the interactions between techniques of the body and language as a whole: speech is not merely a mental phenomenon, it is also a phenomenon of sound and therefore eminently physical.[42] Then, by undermining the relationship between body and voice and by combining the first and second films, the original and the remake, Beloff gives a tangible form to the conditions for a schema of visibility, a dispositif in Foucault’s sense of the term, i.e. a system for distributing values: male/female, recognition/visibility, normality/abnormality, legitimate speech/aberrant speech. The reediting and the remake thus form a set involving the archaeological reversal or ‘relinkage’ of images.

In the second study we can therefore see an anthropological dimension, regarding the construction of a symbolic system that establishes a set of differentiations. In his introduction to the work of Marcel Mauss, Claude Lévi-Strauss emphasised that ‘normal modes of individual behaviour are […] never symbolic in themselves: they are the elements out of which a symbolic system, which can only be collective, builds itself’. He added: ‘Abnormal modes of individual behaviour, in a given social group, do achieve symbolic status, but on a plane which is inferior to that on which the group expresses itself.’[43] These are some of the varying degrees and levels of symbolism that emerge from the simultaneously anthropological and archaeological orientation of this installation. In a twofold movement of reuse, Zoe Beloff’s studies reveal themselves as both cultural and visual, both theoretical and artistic, demonstrating to what extent the specific ‘techniques’ that bring words, things, and bodies together have been the subject not only of films whose main purpose was entertainment, but also of educational films as a genre.

Beloff’s films thus transpose and ‘translate’ the raw material that they revisit, not only from the perspective of their ideological dimension – with regard to the dispositifs of power in which these medicalised, standardised, and Taylorised bodies are inscribed – but also and especially with regard to the technical object that these films embody at the very moment they are brought to life. Borrowing Gilbert Simondon’s words, rather than being a utilitarian object, the cinematic apparatus is thus understood in its operative dimension, where the exchange of information between the human and the machine takes place. In this sense, Beloff exposes the dialectic of cinema as Benjamin understood it: she shows that even if the camera initially took part in the alienation of a filmed body, we can appropriate its ability to reveal something concerning gestures and our magical relationships to objects. The
observation of the filmed gesture (as re-enacted, re-made, or recycled) enables us to understand the specific relation between the technical object and the body as well as the specific tension between the cinematic and the filmed gesture.

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*Large parts of this text were translated from the French by Allyn Hardyck.

References


**Notes**


[2] Benjamin adds: ‘Here the camera intervenes with the resources of its lowerings and liftings, its interruptions and isolations, its extensions and accelerations, its enlargements and reductions.'
The camera introduces us to unconscious optics as does psychoanalysis to unconscious impulses. Cf. Benjamin 1969a, p. 237.

3 Francastel 1983, p. 93.

4 See Mulvey 2017, p. 10.

5 Ibid.

6 See Gaudin 2015.

7 On the difference between filmed gesture and cinematic gesture, see Blümlinger & Lavin 2018.

8 I will not go further into the complex discussions in the field that started from a specific reading of Michel Foucault and Jacques Derrida by scholars such as Friedrich Kittler or Bernard Stiegler, who contributed in the first place to the very definition of media archeology, media philosophy, and philosophy of technology. Beloff has been interviewed and her work has been commented on by many different scholars such as Raymond Bellour and Karen Beckman, and more recently Esther Leslie, Jussi Parikka, and Paul Sztulman.


11 The writings of André Leroi-Gourhan, and more generally the French tradition of the anthropology of techniques (particularly Marcel Mauss and Gilbert Simondon) have been for the last decade one of the main reference points in the revival of the sociological theories of action, activity, and practice. See Bidet 2007.


15 Ibid [engl. 1973, p. 73].


17 Keagan quoted in Bacon 2016

18 Beloff 2011, p. 7.

19 Benjamin 1986b, p. 333.

20 Ibid., p. 336.

21 Beloff 2011, p. 7.

22 Eisenstein 1988, p. 3.


26 Gilbreth 1917, p. 125.

27 Eisenstein 1988, p. 4.

28 Benjamin 1986a, p. 317.

29 Ibid., p. 330.

30 See Giedion 1975.

31 Beloff 2011, p. 16.
On the complexity of the notion of innervation in Benjamin’s work, its utopian and critical dimensions, and on the absence in his thinking of a realm beyond technology, see the scholarly study that Miriam Hansen devoted to the experience of film as the thinkers of the Frankfurt School saw it (Hansen 2012, pp. 132-146).

For Deleuze, it is a question of circumscribing a mode of ‘reading’ or ‘relinking’ images, a mode that is unrelated to the functions of narrative and is instead used for what he calls a ‘perception of perception’. See Deleuze 1985, p. 319 [engl. 1989, p. 245].

Joseph Bell wrote: ‘Racial peculiarities, hereditary ticks of manner, accent, occupation or the want of it, education, environment of every kind, by their little trivial impressions gradually mold or carve the individual, and leave finger marks or chisel scores which the expert can detect.’ Bell quoted in Sebeok 1981, p. 35, and Gunning 1995, p. 23.

On this subject, André Leroi-Gourhan wrote: ‘Technics and language are not two distinct typically human facts but a single mental phenomenon neurologically based on contiguous areas and expressed jointly by the body and by sounds.’ Leroi-Gourhan 1993, p. 403.