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Media Archaeology: a viable discipline or a valuable symptom?

Thomas Elsaesser
Universiteit Van Amsterdam

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Abstract

For nearly one hundred years, the moving image has been discussed primarily from the perspective of photography, by organising our questions and theories around cinema as an ocular dispositif, based on light, projection and transparency, or as a recording dispositif, based on index, imprint and trace. In the age of digital imaging technologies, some of which have little to do with optics, such a history of the moving image seems too narrowly conceived.

The broadly based, if loosely defined research field of "media archaeology" not only locates cinema within more comprehensive media histories, it also investigates apparently obsolete, overlooked or poorly understood past media practices. The expectation is that by once more "opening up" these pasts, one can also enable or envisage a different future. The question then arises: is media archaeology a (viable) disciplinary subject or also a (valuable) symptom of changes in our ideas of history, causality and contingency?

Keywords
Media Archaeology, moving image, cinema, history, causality, contingency

Arqueología de los medios: ¿una disciplina viable o un síntoma valioso?

Resumen
Durante casi un siglo, la imagen en movimiento se ha abordado principalmente desde la perspectiva de la fotografía y hemos organizado nuestras preguntas y teorías sobre el cine como dispositivo ocular, basándonos en la luz, la proyección y la transparencia, o como un dispositivo de grabación, basado en indexar, imprimir y trazar. En la era de las tecnologías de la imagen digital, algunas de las cuales con poca relación con la óptica, esa concepción de la historia de la imagen en movimiento parece demasiado limitada.

El ámbito de investigación de la arqueología de los medios, de base amplia pero de definición imprecisa, no solo ubica al cine dentro de historias de los medios más globales, sino que también investiga otras prácticas de medios del pasado aparentemente obsoletas, pasadas por alto o mal entendidas. Lo que se pretende es que, al «abrir» de nuevo esos pasados, pueda también posibilitarse o concebirse un futuro diferente. Y de ahí surge la pregunta: ¿es la arqueología de medios una disciplina (viable) o es también un síntoma (valioso) de los cambios producidos en nuestra idea de lo que es la historia, la causalidad y la contingencia?

Palabras clave
arqueología de los medios, imagen en movimiento, cine, historia, causalidad, contingencia

For nearly one hundred years, film theorists have discussed and understood cinema primarily from the perspective of photography, as material support and ontology. Organising their questions and theories around realism and the indexical-physical link that ties a photograph to that which it represents, they debated cinema in terms of truth and illusion, of image and representation, and they considered cinema as a primarily ocular dispositif, theorised either in terms of projection and transparency or as a recording dispositif, to be understood in terms of imprint and trace.

Traditionally, the genealogies and prehistories that have made possible the invention of cinema have focused on four aspects: the ancient arts of projection (camera obscura), the history of photography (light-sensitive substances), modern developments in optics (telescope, magnifying glass) and the peculiarities of human perception when visualizing motion ('persistence of vision'). Historians of the 'cinematographic apparatus' added another aspect: the monocular representation in perspective in Western art since the fifteenth and sixteenth centuries, which cinema has adopted by constraining the projected image inside 'a framed rectangle - the famous open window of Leon Battista Alberti.

It is obvious that with the emergence of digital cinema, such a resort to photography or projection as a founding genealogy of cinema has become problematic. Therefore, instead of pursuing a film history that requires an almost irreparable break between its analogue period (photographic era) and its digital destiny (or post-photographic era), I became interested in an archaeology of cinema. This might allow us, on the one hand, to discover several narratives of the origins of the moving image that are not necessarily related to photography, and secondly, to open a debate not focused on this break that opposes analogue to digital.

In my book *Film History as Media Archeology* (Elsaesser 2016),[1] I have tried to rethink this story of the 'origins' of cinema, particularly to challenge the idea that cinema as we know it – tending towards greater and greater realism and becoming a story-telling medium – was somehow 'inevitable': a teleology which is implicit in the canonical narrative of cinema as becoming ever more life-like. This narrative of inevitability assumes that all these men of genius, who over the centuries have helped to bring cinema into being (Plateau, Muybridge, Marey, Janson, Edison, Anschütz, Demenÿ, and many others) whether they knew it or not, that is, wittingly or unwittingly

1. The present essay is a modified version of the final chapter, entitled "Media Archaeology as Symptom" (Elsaesser 2016, 351-388).

– had been messengers, mediators or tools, meant to further the inescapable invention of cinema by the Lumière Brothers, and this despite the technological diversity of their inventions and despite what they themselves thought they were inventing, or the practical goals they were pursuing.

In fact, one could argue that the main purpose of "cinema as a media archaeology" is simply to do away with the very notion of "predecessors" and to break open this linearity of the history of cinema, with its false teleologies: from chronophotography to cinematography; from silent to sound; from black and white to colour; from 2-D to 3-D. But the term "media archaeology" itself denotes different things to different practitioners: "What is it that holds the approaches of the media archaeologists together, justifying the term?" ask Erkki Huhtamo and Jussi Parikka, and they speculate: "Discontent with 'canonized' narratives of media culture and history may be the clearest common driving force". (Huhtamo and Parikka 2011, 2-3). For Siegfried Zielinski, one of the first to define 'Media archaeology', it is an activity (*Tätigkeit*) that conducts "probes into the strata of stories, [that make up] the history of the media [and] a pragmatic perspective [that seeks] to dig out secret paths in history, which might help us to find our way into the future". (Zielinski 1996). "Media archaeology is […] a reading against the grain", avers Geert Lovink, "a hermeneutic reading of the 'new' against the grain of the past, rather than telling of the histories of technologies from past to present" (Lovink 2003, 11). For Lori Emerson, "Media archaeology provides a sobering conceptual friction to the current culture of the new that dominates contemporary computing" (Emerson 2014), while Jussi Parikka argues that "Media archaeology sees media cultures as sedimented and layered, a fold of time and materiality, where the past might be suddenly discovered anew" (Parikka 2012). Huhtamo and Parikka again state that "Media archaeologists have begun to construct alternate histories of suppressed, neglected, and forgotten media that do not point […] to the present media-cultural condition as their 'perfection.' Dead ends, losers, and inventions that never made it into a material product have important stories to tell" (Huhtamo and Parikka 2012, 3). But media archaeology can also be the method and aim of those who avoid the term altogether, such as Friedrich Kittler, Jonathan Crary or Mary Ann Doane, or those who – like Timothy Druckrey – even voice their discontent with those for whom media archaeology is the expression of their discontent:

> The mere rediscovery of the forgotten, the establishment of oddball paleontologies, of idiosyncratic genealogies, uncertain lineages, the excavation of antique technologies or images, the account of erratic technical developments, are, in themselves, insufficient to the building of a coherent discursive methodology [for media archaeology]. (Druckrey 2016)

As for myself, I am less concerned with answering "what is media archaeology" and more interested in "why media archaeology (now)", which is to say, I am inclined to treat *media archaeology as a symptom rather than a method*, as a *place-holder rather than a research programme*, a *response to various kinds of crises*, rather than *a breakthrough innovative discipline*, and finally, I worry *whether media archaeology is itself an ideology*, rather than a way of *generating or securing new kinds of knowledge*.

But first the positive features: what a film history as media archaeology can highlight are a number of tensions and contradictions embedded in cinema as we know it, which a shift in attention resituates or even resolves, but now within an enlarged context or extended time frame. One such inherent tension, for instance, is the very set-up of the cinematic apparatus, and stems from the fact that the light emanating from the movie projector or beamer extends and scatters over a wide area: it fills the given space in varying degrees of density and intensity. However, in order to achieve an 'image', this light has to be re-absorbed by a black surround and a rectangular frame, thus countering the scatter effect by bundling the light and redirecting it towards the carefully delimited part of the overall space that is the screen. Without such a frame, off-screen space would not be possible, and the entire theory of suture would not have the hold that it does or did have on certain film theories. More generally speaking, with screens today often being so large that the image actually or potentially exceeds the human field of vision, this constraint inherent in the traditional cinema screen loses its normative status and becomes more noticeable as a historical convention intended precisely to hide a contradiction.

Furthermore, such unbounded images, projected – thanks to technology that was first developed for anti-aircraft search lights – on any surface whatsoever, open up the possibility of retroactively returning to a long-standing practice among the arts of projection that appeared to have become obsolete with the arrival of the cinema, namely the late-18th- and 19th-century phantasmagorias of, among others, Paul Philidor and Etienne-Gaspard Robertson. This practice, once so prevalent and popular – and a highly significant metaphor for a philosopher such as G.W. Hegel – has been known to film historians and is regularly mentioned in passing. However, it has only achieved the status of a 'neglected' tradition worth revisiting since our own visual environment once more resembles phantasmagoria spectacles (i.e. visual displays that 'fill' a space rather than being focused and bounded, used by artists such as Krzysztof Wodiczko and Doug Aitken, Anthony McCall and Matt Collishaw).

Mobility, Portability, Commodity

Another tension that is also not unknown, but often ignored, is how cinema inscribes itself in the long history of making images mobile and portable, which takes us back to Renaissance Italy, the secularisation of image-making and the establishment of a market for pictures, in the same way that other goods are manufactured on demand and marketed. The move from fresco walls to oil painting is a complex one, with far-reaching consequences, which among other things proves that such transitions and transformations are neither linear nor gradual. One simple point to make is that a mobile picture can become a commodity, be bought and sold, traded and transported, owned and displayed in ways and places quite different from a mural commissioned by a monastery or a church. This process of mobility and portability affected both size and subject matter, but it also determined the mode of representation and made special sense of monocular perspective, reinforcing the spectator's single point of view, as if to 'anchor' the image via the sight-lines, and to compensate for the picture's sudden mobility and variability in physical space.

Photography is, of course, the medium that has most decisively intensified these 'economic' aspects of image-making and image trading, and accelerated the mobility of images, as well as the 'trading places' for mechanical images and mass-produced objects in the form of commodities. The interesting question why the moving image relied so heavily on photography, when electronic image-making and image transfer were already so technologically close and so speculatively fantasised by illustrators like Albert Robida, might here find an answer of sorts. Cinema, as a photographic medium, was able to inherit and to exploit both traditions – that of wall paintings or murals, and that of miniature and oil-printing, combining the advantages of size and extension provided by an image-wall with the framed and centred view of the oil painting, as well as the attention to detail and close-up inherent first in the miniature, and later in the photograph.

Yet while getting the best of all possible image worlds, cinema also embedded another tension in its dispositif, so that the different parameters of fixed and mobile, of the focused gaze and the wandering eye, had to be renegotiated and played off against each other. It required the moving image to leave the cinema theatre and make its way into the gallery space, for us to become once more acutely aware of these parameters, so that a video and installation artist like Bill Viola can, as it were, rediscover for his films the Christological drama of the Gothic cathedral's triptych altar piece and reinvent the interior of Giotto's Scrovegni chapel in Padua for his *Going forth by Day* (2002) at the Guggenheim Museum in New York. By a paradox that perhaps only the media archaeologist can fully appreciate, contemporary art has rediscovered the unique aesthetic value of location and site-specificity, which artists sacrificed at the point in time when images became secular, and the market required mobility: when it comes to the status of images, patrons and site-specificity versus market and mobility would appear to constitute trans-historical variables.

The increased-mobility-and-circulation argument regarding images since the 'invention' of easel painting, and thus their closer alignment with commodities which can be traded, owned and possessed, is also a thesis advanced by Fred Jameson in his essay *The Invention of Italy*, and similar reflections can be found in John Berger's *Ways of Seeing*. What this means for a genealogy of cinema is that the circulation and mobility of images in the form of framed pictures turns them into physical objects, while the material objects depicted become immaterial representations – a move often commented on in connection with Dutch still-life paintings (the 'pronk' pictures of the 1660s-1690s), where food and precious objects are arranged and displayed in the same ways as shop windows were to exhibit luxury goods in the grand department stores on the boulevards of Paris or on New York's Park Avenue. Across a two-hundred-year gap, then, the cinema of around 1900 would be taking up this Dutch art of transubstantiation, 'remediating' it from painting, photography and shop-window, to film, tableau and the moving image. Indeed, cinema would thus not only be a storytelling *medium*, but function also as a *mediator* that prepares and reshapes the physical world as image, picture and spectacle, in a process that only intensified and accelerated throughout the 20th century, leading a political filmmaker like Harun Farocki to concede that even his kind of critical cinema inevitably contributed to 'making the world superfluous', as images absorb the real in the very act of representing the real.

Geometrical Optics and Physiological Optics

In the linear narrative I have just sketched – from fresco wall and mural to oil painting, from easel painting in the studio to the easel *al fresco* in the landscape, from portable easel to portable photographic camera, and from portable photographic camera to the Lumières' cinematograph – we note the mobility *of the image* and the automation of its registration, while at the same time holding mobility in check, containing, focusing and fixing it *within the image* as the single point of view, itself subjected and directed by the rules of monocular representation. Insofar as we persist in associating cinema with this Renaissance model of perception and argue that this single point of view reinforces both bourgeois individualism and a strict subject-object division, we may have little choice but to declare cinema to be based on an unresolved contradiction which has predestined it to becoming obsolete. The reason often given for this obsolescence is that our contemporary media landscape (of multiple screens, both big and small, both indoors and out in the open) and our contemporary media use (watching movies on our smart-phones, using YouTube and Vimeo or Hulu and Netflix as our video collection)

encourage us, indeed oblige us to adopt multiple points of view, to be multi-tasking and to be flexible both in our object-relations and our subjectivities.[2] To be held in thrall by the double geometry of linear narrative and monocular perspective is now experienced more palpably as the arbitrary constraint it has always been, merely by the fact that other modes of interacting with moving images have become so readily available and have found so little resistance in becoming habitual and commonplace.[3]

Yet this is not the only conclusion one can reach. There are ways of thinking about cinema outside the constraints of this cinematic apparatus, and past the apparent blockage that the ontology of the photographic image has created for post-photographic cinema. Philosophically, it has been the revival of phenomenology on a broad front, which is symptomatic of the blockage, as it attempts to address the limits of the fixed geometry of representation. Yet media archaeology, too, should be able to rise to the challenge and offer an alternative genealogy which grounds cinema in a different way and shows how there are genealogies that can help us formulate such an alternative.

For instance, in what might seem to be a counter-intuitive and even counter-factual move, one can consider Bazin – champion of cinematic automatism, proponent of the ontology of the photographic image, and counted among the phenomenologists of cinema – to also have been an eminent media archaeologist of cinema, for whom photography is only one possible physical and metaphysical support.[4] As recent scholarly work has shown, there are many more Bazins, and one of them has always proposed plausible arguments for regarding cinema as part of a very long history of human preoccupation with mortality and death, under the dual heading of preservation and afterlife. Cinema for Bazin belongs to the same spiritual urge, fed by anxiety and dread, out of which humans have wanted to preserve the dead by mummifying them. Also reminding his readers, among other things, of the Turin shroud, Bazin insisted on cinema's role as trace and index, in the way that plaster casts and death masks preceded photography and at the same time were continued by photography, even to the point of eventually using the same negative-positive reversal in order to preserve the uncanny likeness of human beings after death, fixing their faces and expressions as if they were alive.[5] Defined in this way, cinema is both very ancient and very modern, and therefore, as long as human beings fear death and wish for an afterlife that is both immanent and tangible, cinema will persist and survive. In other words, Bazin's film history as media archaeology makes room for a genealogy that embeds cinema in a history of opacity rather than transparency, of material objects like an envelope or a cast, rather than identifying it solely with a view to be contemplated and a window on the world.

In Bazin, these alternatives do not preclude each other, but exists side by side. Similarly, I believe it should be possible to develop a media-archaeological account from which analog cinema and digital cinema can be seen to be equally valid, if differently weighted ways of understanding both the material basis of cinema and its different manifestations over time, so that apparent 'returns' – such as the 'return' to site specificity, the 'return' of 3-D, or the 'return' of phantasmagoria as installation, and of the diorama as triptychs of multiple plasma screens – need not be plotted on a chronological timeline and therefore need not be seen as returns at all, but rather as ever-present resources that filmmakers and artists are able to deploy as options and possibilities.

Such an account, which opens up parallel trajectories, might start with the nature of light itself, its propagation through space, its absorption by physical bodies and its perception by a sentient subject. And continuing along the media archaeological trajectory, it could take us to the Dutch Republic around 1650, when a young Christiaan Huyghens, a brilliant mathematician and indefatigable experimenter, watched the lens grinders of Amsterdam, who made significant progress in constructing better microscopes and telescopes, and then sketched one of the first drawings of a working magic lantern. Interested throughout his life in the science of light and projection, he devoted a considerable amount of his research to elaborating what was then a minority view, namely the 'wave' theory of light.

Huyghens knew about the controversy between Isaac Newton and Robert Hooke at around the same time over the properties of light (wave or particle). Given Newton's towering reputation, it was assumed that Newton was right (i.e. light is made up of particles that travel in straight lines), and for many practical purposes (including the projection of a transparent slide) the particle theory of light seemed both confirmed and adequate. Yet as we know, the nature of light never became an either/or, open-and-shut case, and today

2. As an aside, it is worth reflecting on the fact that contemporary social media persuade us that every relation we have with the world is a subject-subject relation (in the form of friending, sharing, re-tweeting etc), rather than a subject-object relation (as in cinema). Yet it may be closer to the truth that that the companies which control these social media, as they aggregate our subjectivities, treat us as de facto objects, i.e. as primary sources of raw data, so that these subject-subject relations are merely the cover-up for object-object relations.
3. A further point should be added. If one follows the traditional genealogies of cinema – camera obscura, laterna magica, monocular perspective, a fixed geometry of representation, the photographic ontology – then the arguments for why this kind of cinema is obsolete are not only hard to refute, but one can also understand why certain media archaeologists are right in showing little interest in cinema, as they attempt to reverse-engineer the future, in order to better manage our present.
4. I have written about Andre Bazin as media archaeologist at greater length elsewhere. See Elsaesser (2012, 3-12).
5. Originally, of course, photography did not use the positive-negative reverse process. For instance, the daguerreotype does not have a negative: the metal film plate in the camera is developed as a positive. Each image is unique, and each daguerreotype is also reversed (mirror image). The similarity between death mask and photograph still holds but would then lie in the photograph bearing the direct imprint from reality.

the particle-or-wave argument is one – albeit simplified – way of distinguish between two kinds of optics: a geometrical optics and a physical or physiological optics. It is geometrical optics (where light travels in rays along straight lines, and may be absorbed, reflected and penetrate transparent surfaces) which by and large underpins our traditional genealogy of cinema, implying that from the magic lantern, as developed by Kircher, a direct and uninterrupted evolutionary line leads to the cinematograph and thus to the cinematic apparatus, i.e. what I have referred to as the fixed geometry of representation.

The person to challenge this view in modern times, inspired by Foucault's archaeology of knowledge, was the art historian Jonathan Crary in *Techniques of the Observer* (1990), a media archaeological account in all but name that documents the diversity and heterogeneity of visual culture in the 19th century. In a perceptive review, Tom Gunning highlights the book's significance for film theory and film history:

> Crary's originality lies in interrelating [the romantic valuation of the subjective and the embodied] to the nineteenth century's technical investigation of the physiology of perception. The model for perception no longer parallels the rational and disembodied vision of the camera obscura but rather founds itself on an actual examination and, in Foucault's sense, discipline of the physical organs of the senses.

Crary, however, not only compares scientists' accounts of perception with artists' experiments with different ways of seeing; it is pre-cinematic devices such as the phenakistoscope, or the hand-held stereoscope – popular gadgets that were once found in almost every bourgeois home – that hold the key to the changed physiological optics. As Gunning notes:

> The "philosophical toys" devices that produced optical illusions of motion or three-dimensionality, resulted directly from these physiological investigations, usually as demonstrations of recently discovered properties of vision. In contrast to the camera obscura, such devices claimed no access to a stable reality. Rather, the realism they produced fascinated observers precisely through its illusory power, recreating a realistic simulacrum independent of an actual referent. The physiology of the eye, the body of the observer herself, produced the superimposed images of the thaumascope, the apparent motion of the phenakistoscope, or the three-dimensional illusion of the stereoscope. Instead of an image of the tangible exterior world created by the reassuring illumination of sunlight, these visual devices cast light on the dark processes of the body, the ability of perception to be manipulated divorced from an actual referential reality. […] Crary's thesis breathtakingly ruptures the myth that three-dimensional illusionism [of Renaissance perspective] has a constant ahistorical significance.

Crary's rehabilitation of physiological optics as having existed throughout the 19th century alongside geometrical optics (with the most popular optical toys and vision machines being based on physiological optics) would also constitute a first step in understanding how and why, in contemporary cinema (and film studies), there is a strong tendency to think of spectatorship once more in terms of embodied perception (i.e. immersivity, interactivity, tactility and other ways of signalling 'haptic' qualities). However, while most film theorists proposing such a 'turn' to embodiment support their case either with the 'return' of phenomenology (Merleau Ponty) or by applying theories developed in the cognitive sciences (Antonio Damasio's writings about the 'embodied mind', for instance), the media archaeological argument would derive such a notion of embodiment both from the contrasting, complementary and still-debated theories of optics which first divided minds in the late 17th and early 18th centuries, precisely when the magic lantern became a popular source of entertainment, and from the evidence adduced by Crary that embodied perception in the form of physiological optics was the default value of much of 19th century visual culture. Giving equal weight to physical optics alongside geometrical optics in a media archaeology that seeks to excavate alternative genealogies of cinema, would therefore be in line with the argument that contemporary cinema is best understood in terms of embodiment – even without invoking digitization or digital media as the main determinant.

In other words, once monocular perspective – the prime symbolic form that gave geometric optics its normative status – is no longer the default value of our ways of seeing and our modes of representation, one begins to discover ample evidence which suggests that in the history of visual media, there have been vision machines, optical toys and para-cinematic devices that are either explicitly based on, or implicitly acknowledge physiological optics, as opposed to geometrical optics. Extending Crary's argument, one could say that a physiological optics rather than geometric optics as starting point also makes room for considering cinema more in terms of energy and intensity, with images regarded as emanations and presences, rather than as iconic likenesses or 'representations'. Likewise, a wave theory of light also brings images into closer proximity with sound, with sonic spaces and sound-design, long recognised as one of the key changes that has transformed mainstream cinema since the mid-1970s.

A name that comes up in Crary, as well as in my discussion of energy and entropy, is that of Hermann von Helmholtz, who – in this conjuncture – might well emerge as a key figure, and in whose work the different media-archaeological accounts of cinema intersect. Helmholtz is the author of the foundational treatise of physiological optics, *Handbuch der physiologischen Optik* (1867), as well as a study of the physiological basis of music, *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (1863). Helmholtz was also a crucial figure, along with Maxwell-Clark, Faraday and Hertz, in analysing electromagnetic fields, and thus in laying some of the groundwork not only for harnessing electricity for the generation of energy as both labour and light, but also for electronics – another

way of controlling electricity, in the form of circuits, switches and relays – as the basis of signal – and information-processing, as well as radio and telecommunication. Given the dependence of the digital image on precisely these functions and properties of electricity, it may offer the opportunity to align the complementary fields of physiological optics with those electromagnetic theories of circuits and relays where waves, interference, diffusion and diffraction, as well as energies, perturbations and intensities play a significant role. Almost all of the physics that has made the Internet, wi-fi and satellite transmission possible relies on sophisticated versions of the wave theory of light and on electromagnetism. It therefore makes sense to think of a level of generality where the moving image can be understood as sharing these properties as well: not only reaching the retina and stimulating the ocular nerves, but also affecting the other senses, impacting and enveloping the body, now considered as a total perceptual surface that is sensitive to all the energy fields that surround it and into which it is immersed.

For instance, blockbuster films at the multiplex increasingly depart from the framed view, affording the viewer neither a fixed horizon nor images at the human scale. Think of *Avatar, Life of Pi*, *Gravity* or *Interstellar*: deep space, the earth's oceans or other planets seem merely the narrative pretext for altering our spatial coordinates in order to re-calibrate perception by disorienting vision. At the micro-level, a similar but inverse tendency operates: the image comes too close, both visually and viscerally, for the viewer to gauge scale or to keep her distance: goPro cameras, as used in certain documentary films (I am thinking of the Canadian film *Leviathan*, which immerses us in deep sea fishing), frequently reinforce and exploit these possibilities, inherent in the digital image, of conveying tactile sensations and haptic qualities, and thereby make the image appeal to the sensorial register of touch and the sensitivity of skin.

As examples of physiological optics, such films not only render images more tactile, but also fill the space and are absorbed by our senses through their highly elaborate spatial sound design. Through this surround sound, we receive sensory information not only from all directions but also to different parts of our body – the ear, of course, but also the skin and the solar plexus, which means that the main organ of perception is no longer the centred eye of Renaissance perspective with everything aligning along the visual cone, but a different kind of scanning of the optical as well as the sensory field, leading to an involvement of the body. It is in this sense that the whole body becomes a perceptual surface – eyes, ears, skin, belly, fingers. Such realignments of the (embodied) mind and (perspectival) space might well be the clearest indication that, with regards to vision, a different episteme is about to establish itself right across culture, from avant-garde film to installation art to mainstream cinema.

Media Archaeology as the Ideology of the Digital?

One of my main arguments for media archaeology not only as the most appropriate contemporary form of historical research, in that it is of its time and for its time, but more specifically the argument for a *film history as media archaeology*, would be that since the beginning of the 21st century, our visual culture has undergone several kinds of change. And while on the surface it seems to be connected to, and even 'caused' by the digital turn, a closer look and a wider horizon, i.e. a media archaeological perspective, suggests that this 'turn' is also a 'return' to an earlier engagement with images, except that 'return' implies a linear sequence, which media archaeology explicitly sets out to 'upturn' and to distribute spatially rather than chronologically.

I have tried to make the argument that, for much of its history, cinema has not only served as the prime storytelling medium of the 20th century, but also greatly accelerated the mobility and circulation of images as pictures of the world, thereby aiding the commodity status of objects as images and images as objects. These (ideological) functions, however, have now largely been taken over by different media configurations (television, the Internet) and the respective institutions and corporate entities that control and own them. This thereby 'frees up' cinema for other purposes and functions, so that its 'obsolescence' may be the more overdetermined, but also the most appropriate name for this 'freedom'– not from practical use, but from ideological servitude. Yet this freedom, which I have epitomised as a "poetics of obsolescence" may also have a hidden underside, as it were, which can take several forms:

Firstly, media archaeology, despite the brave calls to go against the grain, to make a last stand against the tyranny of the new, to dig into the past in order to discover an as yet unrealised future, nonetheless does not escape our culture's most prominent pathology: the need to preserve the past, to fetishize 'memory' and 'materiality' in the form of trauma and loss, even as we lose faith in history and outsource to other parts of the world the manufacture of our material goods.

Secondly, media archaeology carved out a disciplinary niche for itself in media studies and the field of new media of the 1990s, because it offered a historical perspective that countered the claimed memory-loss of digital media and what Wendy Chun calls "the enduring ephemerality" of Internet culture. In this sense, the insistence on the relevance of the old and obsolete may well be the necessary double of the celebration of the new we have been living. After all, obsolescence is a term that belongs to the discourse not only of capitalism and technology, but also speaks from the position of relentless innovation and 'creative destruction', and it cannot but include media archaeology as part of the ideology of digital media.

Thirdly, media archaeology, especially in the realm of media art, has been instrumental in promoting the notion that *everything, which used to be non-art can become art.* This is not altogether new,

because it is the axiom at the heart of conceptual art and pop art from Marcel Duchamp to Andy Warhol. Yet it, too, risks being merely the flip-side of the general appropriation of the past for the benefit of our corporate future, and thus merely the lure or bait that the beauty of the no-longer-useful holds out, instead of being a resisting reminder of unfulfilled potential and the reservoir of utopian promise, which is how Benjamin regarded the *objet trouvé* in his essays on Surrealism and photography.

The consequence is that a media archaeology considering itself cutting-edge in the contemporary art world is not only a proxy avant-garde, but allows every past scientific experiment, or pseudo-scientific practice, every failed media device, every obsolete technology, every disproven theory, and every mad hatter's invention to be revived as "art" or recycled as "vintage" and "classic". Museums and art spaces are reverting to the curiosity cabinets from which they emerged in the 19th century, repeating the imperial and colonising gesture of the collector of captured exotica, except that the wonders of nature and the noble savages of bygone times are now the remnants of the industrial revolution, of the first machine age, of consumer culture – which includes cinema as that age's "last machine" (Hollis Frampton). *Might it be that 'culture' and 'art' are in the process of usurping industry and technology, rather than the other way round (as T.W. Adorno and others have predicted and feared)?* In the face of an electronic present that exceeds us at every turn and eludes our grasp, media archaeology in art spaces becomes symptomatic of the material fetishes we require in order to reassure ourselves of *our* material existence, or rather: in the mirror of these media machines' sculptural objecthood we can mourn and celebrate our own ephemerality *and* obsolescence.

Making a fetish of obsolescence would thus be part of media archaeology's ideological function, by giving digital media not only a pedigree, but also a 'soul', allowing the nostalgic appropriation of anything that preceded it. The digital is such a powerful lure, not merely because it thinks it *owns* the future, and can accommodate *every* past, and not merely because it puts an end to the humanities and enlightenment humanism, itself endlessly critiqued and deconstructed since Nietzsche and Heidegger. The digital is such a lure because it promises to put an end to the human as we know it, which is to say, an end also to the human condition – including our individual finitude.

Who can tell the promise from the threat? Even a media archaeology that recognises itself as yet one more symptom of the unsustainability of our current way of life, both moral and ecological, or thinks of itself serving as the emergency brake on the express train that is travelling on a bridge to nowhere, does not escape the risk of merely being the whistle that blows off steam. On the other hand, a media archaeology that promotes itself as a materialist epistemology of knowledge reflects the awareness that all knowledge (of self and the world) is henceforth (or as Kittler would say, has always been) technologically mediated. Therefore, the epistemological bases of how we know what we know, of what is evidence and what is presence, of what is material and what is embodied, of what is dead and what alive – all these (ultimately 'ontological') questions must be put to the media technologies that surround us. Their study cannot be reduced to the engineering blueprint of their mechanisms, nor is their meaning to be sought solely in their use, since so much of what makes us human would seem to be baked into them, if we follow Benjamin, Foucault or Kittler. It gives media archaeology – as the determinate 'reading' of these technologies, in the spirit of recovering the fantasies sedimented in their functions and reviving the aspirations embedded in their design – the status of an allegorical device, by which the human and the machine interpret, but also interpenetrate, each other. The more 'life' becomes 'designed', reality becomes 'virtual' and 'intelligence' becomes 'artificial', the more, it seems, 'art' has to include 'non-art' and be life-like: glitchy, object-based and un-intended (or: failure prone, thingy, random and contingent). Such 'allegorical' archaeology epitomises the two-way processes and encapsulates their mutual compatibility.

My brief example of geometrical optics and physiological optics as being two sides of the phenomenon of light, with both optics feeding into what we know as 'cinema', aimed to show how a binary divide might be overcome by enlarging the context, as it were, and extending the horizon. It does not dissipate the fundamental ambivalence of media archaeology, but gives this ambivalence its place as placeholder (of the human). As the discourse that shadows the digital (indeed as what may have been secreted by the digital), but also resists the digital, media archaeology is the symptom of the disease of which it also hopes to be the cure: deconstructing and reconstructing the human *after* the digital and *through* the technological.

It is in the interstices of such a media archaeology that our view of the cinema of the 21st century is taking shape. Having handed over its primarily ideological functions to television and the Internet, cinema is ever more part of life, which is to say, ever more omnipresent, filling not only each available screen, but every accessible space: becoming invisible, as it were, by virtue of its ubiquity. In this respect, Hollywood event-movies are in full alignment with the digital culture in which they thrive and with the futures this culture presumes to own.[6] We seem to have come full circle: digital cinema revives and reinstates 19th-century physiological optics, 'harking back to'

6. Mark Zuckerberg, on acquiring the VR system Oculus for Facebook, proclaimed that "Oculus's mission is to enable you to experience the impossible. Their technology opens up the possibility of completely new kinds of experiences". This oxymoronic 'possibility of experiencing the impossible' was advertised under the heading: "The Samsung Gear VR Is Your Window Into The Future", accompanied by a picture of a man peering at us while wearing a headset that effectively makes him blind to his surroundings. http://techcrunch.com/2015/11/20/samsung-gear-vr/?ncid=rss&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Techcrunch+%28TechCrunch%29 [Accessed: 20 November 2015].

phantasmagoria spectacles, to panoramas and dioramas, bridging the divide between interior and exterior, and creating perceptions that augment or add reality to the world, rather than represent or reflect the tangible realities of the world. Sidelined, though not suppressed, are geometrical optics, which – ever since Descartes and Locke defined 'man' by a strict subject-object divide – indexed the camera obscura as the most appropriate metaphor for the rational mind. Emulated by the cinematograph, the optics of the camera obscura led cinema (with the exception of the brief period of early cinema, when a film like *The Big Swallow* could swallow up not just the cameraman, but the entire episteme of geometrical optics) towards the disembodied eye and the mobile view, useful ideological tools, as we have seen, for both dominance and discipline. If cinema's digital reincarnation seems to 'undo' all this by once more giving the spectator both body *and* sight, and the image both volume *and* site, it is helpful to remind oneself that we are dealing not with antagonistic or incompatible systems, but with the dual manifestations of light itself, complemented by the (aural and visual) genealogies of imprint and trace, of index and signal.

On the other hand, cinema's purported obsolescence, initially debated around the nature of indexicality, photographic and post-photographic, but now put in the wider context of instantaneity, interactivity and simultaneity, by a media archaeology focused on television and the electronic media, also means that cinema's freedom from ideological tasks – its indifference, its inoperativeness, its uselessness – can be assigned a different value. This value dovetails with the moving image's increasing importance for museums and galleries, given that one of the traditional conditions for an object or practice to enter the art space is its 'autonomy' and thus its freedom from practical uses and its independence from instrumentalization: the post-photographic obsolescence of a certain (idea of) cinema would thus converge with a newly acquired status as 'art', at least within the conventionally formulated definitions of art.

Film history as media archaeology can thus also be understood as a way of readying cinema for this special kind of inoperativeness, the one we associate with art. In other words, film theorists do not have to claim for cinema the status of art *a priori*, as they have so often done since the 1920s, with the consequence that – as the study of early cinema has shown – in pursuit of this ideological project, vital aspects of cinema's history and pre-history were suppressed, ignored and even distorted. Instead, the cinema of the 21st century has *become art*: now in Walter Benjamin's sense of something taken out of circulation, thereby preserving, accumulating or setting free energies inherent in the useless and in the free play of the disinterested. Such a dimension of art would have emerged out of the medium's material histories, treated as allegorical archaeology, rather than floating above history in the timeless realm of the beautiful and the true. Here, too, a circle seems to complete itself: media archaeology, initially indifferent or even opposed to the question of whether cinema was an art form, turns out – under the conditions of a digital culture to which it partly owes its existence – to provide the arguments for cinema to assume the historical as well as theoretical status of art, assuring it a future thanks to its being an intermezzo, a detour and obsolete. Does this answer my question 'what is cinema (good) for'? Probably not in any exhaustive way, and possibly not even to anyone's satisfaction; but hopefully it supplies enough 'conceptual friction', enough 'reading against the grain' and 'food for thought' to put the question on the agenda.

The last major cultural shift in these larger default values of Western visual perception was the introduction of the central perspective, beginning in the 1450s in Italy, and generally identified with the European Renaissance. However, in the 15th century it was the religious painters that acted as the mediators of the new ways of seeing: first depicting Heaven and the Almighty in altar pieces, and then far distant sights, producing a possibly unintended consequence: namely, that perspectival projection, which after all had God as the vanishing point to secure the validity of representation, de facto contributed to secularisation. Today, by contrast, it is popular entertainment, games and the movie industry that act as a kind of collectively elaborated template or interface, with perhaps equally unintended or at least unpredictable consequences.

Consider the following: the extension of our spatially configured visual and aural environment, such as we experience it in the data-rich augmented realities, is symptomatic of the rise of the surveillance paradigm, which – taken in its widest sense – is materially affecting our understanding and engagement with images and visual information off-line and on-line: in either case, *to see is to be seen, to act is to be tracked*. Contemporary cinema, insofar as it participates in this hybridity of visualisation, virtualisation and action, plays a duplicitous role. While it cognitively and bodily empowers the users and spectators, it also increasingly releases them from responsibility and consequence: an ethical challenge we are only beginning to become aware of.

On the other hand, once images are no longer considered by our culture as *views*, i.e. something to be *looked at* or to be contemplated, but more like *clues*, i.e. as instructions for action, to be *clicked at*, then they undo something that Renaissance perspective accomplished; namely they banish the magic powers of images to act and be acted upon, which the Christian religion made ample use of, when the magic of the painted saints (to heal, to console, to intercede and to protect) was a function of their fixture to an actual site, i.e. as murals and frescos in churches or monasteries. What is now being instrumentalised is a different kind of agency in images, perhaps no less magical (in their effects of mimetic embodiment, of viral proliferation, of shock and horror).

If this new regime of embodied vision, with the image as an agent or trigger for action, implies that we are once again – as in the Middle Ages –sharing the same physical space with the image and are no longer separated by a frame (whether functioning as a

window or as a mirror) but rather by a door or portal, then notions of representation and projection, both key elements of Renaissance perspectival space, would have to be abandoned in favour of an ontology of immediacy or presence. We would indeed experience a shift in both paradigm and episteme, one for which the artist Hito Steyerl has coined the term "vertical perspective": "Imagine you are falling. But there is no ground". What in the context of the revival of 3D, I have elsewhere analysed as a predilection for horizonless images, where floating and gliding are more appropriate than sitting down or standing upright, Steyerl radicalises into the condition of "being in free fall", thus taking it from the aesthetic realm into the political. She argues that when we fall, we feel as if we are floating, or not moving at all, because: "falling is relational: if there is nothing to fall towards, you may not even be aware that you are falling. […] Whole societies may be falling just as you are. And it may actually feel like perfect stasis". Steyerl goes on to explain:

> Our sense of spatial and temporal orientation has changed dramatically in recent years, prompted by new technologies of surveillance, tracking, and targeting. One of the symptoms of this transformation is the growing importance of aerial views: overviews, Google Map views, satellite views. We are growing increasingly accustomed to what used to be called a God's-eye view. On the other hand, we also notice the decreasing importance of [...] linear perspective. Its stable and single point of view is being supplemented (often replaced) by multiple perspectives, overlapping windows, distorted sightlines, and divergent vanishing points. (Steyerl, 2011)

Vertical perspective inaugurates a free-floating presence, immaterial and invisible as well as ubiquitous and omnipresent. As symbolic form or as new episteme, however, it is as much a set of formalised conventions as linear perspective was when it pretended that the earth was flat and man was the only creature that mattered in the eyes of God. Now the sense of ubiquity, simultaneity and omnipresence compensates for us being a mere speck in the universe, enmeshed in networks of plotted coordinates, tracked and traceable at every point in space or time and suspended in an undulating, mobile, variable *inside*, to which there no longer corresponds any *outside*, however vast, rich and connected such an inside (or on-line) world seems to be.

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CV

Thomas Elsaesser
Universiteit Van Amsterdam
T.P.Elsaesser@uva.nl

Reguliersgracht 20
NL-1017LR Amsterdam

Born in Berlin in 1943, I was educated at Heidelberg University and the University of Sussex (U.K.), where I received a B.A. in English Literature in 1966 and a Ph.D. in Comparative Literature in 1971. After working as a film critic in Brighton then London and editing the international film journal Monogram, I taught European Romanticism and Literary Modernism in Comparative Literature at the University of East Anglia from 1972 onwards. In 1976 I initiated Film Studies at the University of East Anglia, chaired Film Studies until 1986, and was in charge of the Master's and Ph.D. programme in Cinema from 1980 to 1991.

Appointed to the University of Amsterdam to build up an undergraduate and graduate programme in Film and Television Studies (the first in The Netherlands), from 1991-2001 I was the Chair of the Department of Film and Television Studies (now Media and Culture), which has approximately 1200 students majoring in Film, TV and Digital Media. During that period I was also director of an international M.A. Programme in Film Studies and Visual Culture and in 2003 initiated the MA in Preservation and Presentation of the Moving Image (P&P). From 2001 to 2008 I was Research Professor and director of a Ph.D. Programme in 'Cinema Europe', offered in conjunction with ASCA, the Amsterdam School of Cultural Analysis, of which I was a Founding Member and member of the Executive Board until 2005. In 2008 I took mandatory retirement as Emeritus Professor and have since been teaching as Visiting Professor at Yale University (2006-2012) and Columbia University (since 2013). I am also General Editor of the series Film Culture in Transition, published by Amsterdam University Press, and distributed in the US by University of Chicago Press. Fifty-five volumes have so far appeared under my editorship.

My books as author include *New German Cinema: A History* (London: Macmillan and New Brunswick: Rutgers University Press, 1989, reprinted 1994) which received the Jay Leyda Prize (NYU) and the Kovacs Book Award (SCMS), *Fassbinder's Germany: History Identity Subject* (Amsterdam: AUP, 1996), *Weimar Cinema and After* (London/New York: Routledge, 2000 [winner of the Kovacs Book Award of SCMS]), *Metropolis* (London: BFI, 2000; 2nd edition 2012), *Studying Contemporary American Film* (with Warren Buckland, London/NY, 2002), *Filmgeschichte und Frühes Kino* (Munich, 2002), *European Cinema: Face to Face with Hollywood* (Amsterdam: AUP 2005) winner of the Lumina Prize, *Film Theory: An Introduction through the Senses* (with Malte Hagener, NY: Routledge, 2010), *The Persistence of Hollywood* (NY: Routledge, 2012) and *German Cinema - Terror and Trauma: Cultural*

Memory since 1945 (NY: Routledge, 2013). I have also edited and co-edited some twelve volumes on Early Cinema, Quality Television, Digital Cinema, Harun Farocki and New Hollywood Cinema. Books of mine have been translated into German, French, Italian, Czech, Hebrew, Hungarian, Korean, Chinese, Japanese and Lithuanian.

I have published over two hundred essays in multi-authored volumes, and have articles in American Film, Cinema Journal, Cinetracts, Discourse, Film Comment, Framework, Hors Cadre, Iris, Kinoschriften, Medienwissenschaft, montage a/v, New German Critique, October, Persistence of Vision, Positif, Screen, Sight and Sound, Trafic, Wide Angle as well as in several other foreign language journals.

See also my University of Amsterdam website (http://www.uva.nl/profiel/e/l/t.p.elsaesser/t.p.elsaesser.html) and **full list** of publications.

For my retirement from the University of Amsterdam, my colleagues presented me with **Mind the Screen** (http://www.thomas-elsaesser.com/about?id=112:mind-the-screen&catid=) and for my 60th birthday my friends surprised me with **Die Spur durch den Spiegel** (http://www.thomas-elsaesser.com/books/38-other/110-spur-durch-den-spiegel).

My acceptance speech for the Lifetime Achievement Award from the Society for Cinema and Media Studies in 2008 was published in Cinema Journal (www.thomas-elsaesser.com/images/stories/pdf/elsaesser%20stepping%20sideways.pdf).