FILM CULTURE
IN TRANSITION
50

Film History as Media Archaeology

TRACKING DIGITAL CINEMA

THOMAS ELSAESSER

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Thomas Elsaesser

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The notion that there was some exact instant
at which the tables turned, and cinema
passed into obsolescence, and thereby into art,
is an appealing fiction that implies
a special task for the meta-historian of cinema.[1]

---

[1] Hollis Frampton, "For a Metahistory of Film: Commonplace Notes and Hypotheses," *Artforum* vol. 10, no. 1 (September 1971): 35.

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General Introduction

Media Archaeology: Foucault's Legacy

Film History as Media Archaeology

Anyone speaking about cinema today must be in a retrospective and prospective frame of mind at the same time. There is general recognition that cinema has been an enormous force in the twentieth century—it is the century's memory and its imaginary—but there is far less consensus on what its role, survival, or impact will be in the twenty-first. Even if the 'death of cinema' has been much exaggerated, the focus of interest has shifted—twice over. Popular stars-and-genre cinema continues to be taken for granted as the mass entertainment of choice for an evening out with friends or a partner (occasions for which Hollywood still provides the weekly new releases), but the cultural status once enjoyed by European art and auteur cinema has shrunk and all but disappeared. In its place are the emerging film-producing countries in Asia and Latin America (and to a lesser extent Africa) whose sites are the national, international, regional themed film festivals and whose topics are often the social consequences and family dislocations following globalisation.

As crucial as the geopolitical shifts in the cinematic landscape, is the fact that much of the intellectual attention has undeniably moved to digital media, comprising digital television, computer games and hand-held communication devices, mobile screens, and virtual reality. Scholars and the general public are especially taken by the *social media* and other *participatory forms* of engagement with sound and images, which both affect and connect many more people than cinema and which pose serious political and ethical issues around *direct democracy* and political activism;—concerns about the protection of *privacy*; the tracking and monetizing of our feelings, our likes, and desires; the threat of total *surveillance* by the State, and, last but not least, the criminal exploitation of our online vulnerabilities.

For those committed to the idea that cinema has a future, several options present themselves. Some are happy to draw a firm line in the silicone sand and devote themselves with renewed vigor to the aesthetic promises and possibilities of (past) cinema by reviving, in a different key, the old question of 'Is cinema an art?' and answering, full-throated, in the affirmative.[1] Others are discovering (or rediscovering) the challenges that cinema poses for *philosophy*—for the philosophy of mind and the nature of consciousness, for phenomenology and theories of the embodied mind; others are re-describing and analyzing cinema by posing specifically epistemological and ontological questions.[2] Often the object of study is 'cinema', rather than individual films, making moot its purported death or afterlife. Yet others are happy to use films (especially contemporary ones) as symptoms, as raw materials, or as illustrative examples for a whole range of diagnostic purposes covering politics, identity, sexuality, gender, ecology, disability, the man-machine symbiosis, animal studies, and architecture. Generally, the point of view is that of the audience or the subjectivity of the spectator rather than the producer, artist, or *auteur*: what is of interest is the affective, bodily, or cognitive *response*, *engagement*, or *comprehension*.[3] Under the heading of 'cinematic experience', we can return to Walter Benjamin (and his sophisticated but productive distinction of experience as split between *Erlebnis* and *Erfahrung*), or we can turn to the methods of the neuro-sciences and their experimental findings, hoping to generate new knowledge about the recipient as spectator, subject, consumer, participant, or player. But we also need to ask ourselves 'Knowledge for what?'. To celebrate cinema as a unique cognitive and affective experience, or to instrumentalize cinema and help better deliver its audiences to the aggregators, the data-miners, and monetizers?

There is, however, another way of acknowledging the air of obsolescence that hovers over cinema as a creative practice while relinquishing neither the awareness of its cultural importance nor the belief in its future potential.[4] It is the one explored in this book, and I am calling it "film history as media archaeology". This stance may seem more retrospective than prospective, but in fact archaeology wants what it finds to be maintained, defined, and carried forward. It touches on the *arche* (origin, first principle, authority), it asks about the status of the cinematic 'archive' (the physical and virtual location of the documents, films, and objects that make up cinema's heritage), but the use of the term 'archaeology' is not solely metaphoric, because it also aims to present and preserve this heritage. It significantly differs from some of the responses and options just mentioned, not least because it does not insist on cinema's uniqueness as an art form and its specificity as a medium. Instead, it sees cinema's past as well as its future firmly embedded in other media practices, other technologies, other social uses, and above all as having—throughout its history—interacted with, been dependent on, been complemented by, and found itself in competition with all manner of entertainment forms, scientific pursuits, practical applications, military uses. To arbitrarily and ahistorically cordon off these other uses of the cinematic apparatus and manifestations of the moving image would, from today's position, not only block understanding of how cinema came about; it would also risk misunderstanding some of the key developments under way, especially when dismissing contemporary cinema as a travesty of a once-great art, thereby making the 'death' of cinema a self-fulfilling prophecy.

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[1] Dudley Andrew, the indefatigable advocate for cinema as art, turns André Bazin's question mark in "What is Cinema?" into an exclamation mark: *What Cinema is!* (Oxford: Wiley-Blackwell, 2010).

[2] In the wake of Gilles Deleuze's *Cinema* books, there have been lively debates around the idea of cinema as a 'philosophical' machine and of films as modes of thought. Among many possible references, one article arguing the pro and one arguing against is Stephen Mulhall, "Film as Philosophy: The Very Idea," *Proceedings of the Aristotelian Society* New Series, vol. 107 (2007): 279-294; and Paisley Livingston, "Theses on Cinema as Philosophy," *The Journal of Aesthetics and Art Criticism* 64, no. 1, *Special Issue* Thinking through Cinema: Film as Philosophy (Winter 2006): 11-18.

[3] See Murray Smith, *Engaging Characters: Fiction, Emotion, and the Cinema* (Oxford: Clarendon Press, 1995).

[4] There is a paradox involved here, insofar as cinema's purported 'death', 'obsolescence', and diminished cultural relevance in the digital age is what has turned it into a kind of meta-medium, making it available as a media interface of digital media (Lev Manovich) or as metaphor and allegory, as in many of the books devoted to film as philosophy mentioned above. Much of this volume is devoted to exploring this paradox, i.e., of how obsolescence, either real or posited, can become a source of special aesthetic value and of philosophical attention.

For how could we possibly write a history of cinema today—separate from all the other media that complement it for the users—and enrich or refine the experience for the spectators and open up new venues for the makers of films? But then, how can we possibly write a history of all these media without resorting to bland generalities? Historians have tried to undertake a synthesis, none with greater understanding than Asa Briggs and Peter Burke in their *Social History of the Media: From Gutenberg to the Internet*[5] or Armand Mattelart's *Networking the World*.[6] Yet in their histories, cinema occupies a very small place compared with print media, radio, television, or the Internet. This book is about cinema, and in several chapters that follow I shall be arguing that cinema has become invisible as a medium because it has become so ubiquitous, meaning that its specific imaginary (its way of 'framing' the world and us within it and also separate from it) has become the default value of what is real—to us. It is why I touch upon the question of cinema as art and of its specificity as medium only as some of the ideological frames within which films have been discussed on and off for much of their history (though not all). The book does, however, set itself the task of asking how this imaginary has come about and where cinema fits into larger cycles and determinants that have so far been the engines of change in modern societies: cinema and film history but also cinema and film *in* history.

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[5] Asa Briggs and Peter Burke, *A Social History of the Media: From Gutenberg to the Internet* (London: Polity Press, 2002).

[6] Armand Mattelart, *Networking the World, 1794-2000* (Minneapolis: University of Minnesota Press, 2000).

Can media archaeology, then, assist in this task, and does it have to?[7] The term itself connotes different things to different people: "What is it that holds the approaches of 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."[8] For Siegfried Zielinski, who was 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."[9] "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."[10] For Lori Emerson, "Media archaeology provides a sobering conceptual friction to the current culture of the new that dominates contemporary computing,"[11] 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."[12] Huhtamo and Parikka again: "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."[13] But media archaeology can also be the method and goal of those who shy away from the term or shun it altogether or who, like Timothy Druckrey, may even voice their discontent with those whose media archaeology is the expression of their discontent:

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[7] The first archaeology of cinema is C.W. Ceram's 1965 study by that title (New York: Harcourt, Brace & World). C.W. Ceram is otherwise known as K.W. Marek.

[8] Erkki Huhtamo and Jussi Parikka, introduction to *Media Archaeology: Approaches, Applications, and Implications* (Berkeley: University of California Press, 2011), 2-3.

[9] Siegfried Zielinski, "Media Archaeology", *Ctheory.net* (07/11/1996) http://www.ctheory.net/articles.aspx?id=42

[10] Geert Lovink, *My First Recession: Critical Internet Culture in Transition* (Rotterdam: nai010 publishers, 2003), 11.

[11] Lori Emerson, "Media Archaeology/Media Poetics" (https://mediarchaeology.wordpress.com/class-description/).

[12] Jussi Parikka, *What is Media Archaeology?* (Cambridge: Polity Press, 2012).

[13] Huhtamo and Parikka, 3.

> 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].[14]

Such a warning also has my 'film history as media archaeology' on notice, and one response is a more restricted focus that puts cinema tactically at the center while extending the scope of the medium in new directions: I no longer just ask 'What is cinema?' or 'What was cinema?'. As important is the question 'Where is cinema?' (at public screenings in purpose-built movie theatres or also on television screens, in galleries and museums, as well as on portable devices?). I also want to know 'When is cinema?': not merely performances at fixed times but an evening out with friends or lovers, irrespective of or in spite of the film; cinema as a state of mind or 'mankind's dream for centuries'? Is cinema an irreversible flow and thus a submission to the tyranny of time, or is it an experience that the viewer can control and should manipulate at will?

Yet beneath these questions lurks another one that this book is delicately trying to formulate, namely 'Why is cinema?' or 'What is/was cinema good for?'. What role has cinema played—and is still playing—in the larger development of mankind, or more specifically, in our Western modernity and post-modernity? Before getting to any of these weighty matters, however, a historical and inevitably biographical account is in order, because the present study is part of a thirty-year trajectory that began with an essay reviewing half a dozen books, which then led to an international conference and an edited collection of essays. In the most direct sense, *Film History as Media Archeology – Tracking Digital Cinema* is therefore the continuation and reflexive extension of my earlier publication entitled *Early Cinema: Space Frame Narrative*,[15] which built on an eponymous conference co-organized in 1986, as well as several years of teaching advanced courses on early cinema at the University of East Anglia, followed by more years of teaching media archaeology at the University of Amsterdam.

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[14] Timothy Druckrey, foreword to Siegfried Zielinski, *Deep Time of the Media* (Cambridge: MIT Press, 2006), ix.

[15] Thomas Elsaesser (ed.), *Early Cinema: Space Frame Narrative* (London: BFI, 1990).

Is Media Archaeology a Supplement to or a Substitute for Film History?

For some twenty-five years, then, I have been arguing for an 'archaeological' approach to film history.[16] This is mainly in light of two major insights and developments: first, the realization that the early period of cinema was considerably richer, more developed, and more diversified than film historians gave it credit,[17] and second, the awareness, following the changes brought by digitization and the new media, that certain implicit assumptions made by film historians about the presumed evolution of the form of film and the goal in cinema history had become untenable.[18] To these must be added a third development that reinforced the archaeological impulse: the migration of cinema—both mainstream and experimental—from movie theaters to museums and art spaces in general. While cinema has also migrated and relocated to other sites and platforms since the 1990s, its passage and entry into the contemporary art museum has often taken the form of appropriation, self-reference, and re-enactment whose media archaeological alignment can best be described as a revaluation of *obsolescence as the new authenticity* of the avant-garde.

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[16] My first mention of media archaeology in print was in the introduction to *Early Cinema: Space Frame Narrative* entitled "Early Cinema: From Linear History to Mass Media Archaeology". Although my introduction was a mix of several discourses ("from …to", "mass media") that would subsequently be deconstructed, what I had in mind was a "new archaeology […], because of the fundamental changes that film had brought to the notion of time, space and material culture." (p.1) Especially the emphasis on cinema under the aspect of material culture would become a major preoccupation of media archaeology.

[17] The realization of the richness and diversity of early cinema is generally dated to the synergies that formed between film archivists and film historians during and after the 1978 Brighton FIAF conference and its symposium on surviving films from 1900-1906. See Roger Holman (ed.), *Cinema 1900-1906, Vol. 1: An Analytical Study* (Brussels: FIAF, 1982) and a discussion of FIAF Brighton in the final chapter.

[18] Evidently, film historians did not have to wait for digital media to critique the shortcomings of standard film histories. Speaking personally, Michael Chanan's *The Dream that Kicks: The Prehistory and Early Years of Cinema in Britain* (London/Boston: Routledge & Kegan Paul, 1980) was a key text for rethinking the 'origins' of cinema, as were the interviews assembled in Kevin Brownlow's *The Parade's Gone By* (London: Secker & Warburg, 1968), both of which I read around 1980.

Faced with the historical evidence that had become available, for instance, one could no longer credibly maintain the idea that cinema was progressing towards greater and greater realism thanks to the incremental addition of sound, color, and scope, or even that the goal was the gradual self-realization of the medium's 'essence' (the modernist *telos* of specificity). It even seemed altogether wrong-headed in historiographical terms, if one wanted to comprehend the nature of change itself, when studying the technical media of sound and vision. The forces at work in technological change operate neither incrementally nor organically: one needs to factor in contingent events and recognize that even the continuities are due to a change of default values and that the digital turn but also political events brought about radical breaks during the last decades of the twentieth century. One also has to account for the reversal and rewinds taking place in the art world. Is it more than common sense, when tracking changes in the media, to guard against seeing these changes either as steady progress and improvement or as a narrative of impoverishment and decline? The corollary is that neither technological determinism nor evolutionary selection provides the underlying conceptual matrix, while unintended consequences and *events that did not happen* may also deserve to be considered.[19]

My 'archaeological' perspective was therefore initially intended to distinguish itself both from chronological history (especially the *infancy-adolescence-maturity-decline* narrative) as well as the *nothing is new under the sun* approach, where one finds precedents in the past for every innovation in the present. But it also differed from the way the label 'archaeology of cinema' had been current at the time, namely as an account of the so-called pre-history of cinema, or 'pre-cinema'. The first ones to use the term in this sense were C.W. Ceram in 1965 and Jacques Perriault in 1981.[20] Ceram's study was a well-researched but straightforward linear history of many of the animation, imaging, and projection devices that had, more or less inevitably, led up to the cinematograph. His archaeology ends in 1897 and lines up the inventors and technologies deemed necessary for cinema to be "born". Perriault, too, concentrates on the prehistory of the medium, pointing to philosophical toys, the developments in photography and chronophotography, the different techniques of projections, and everything else necessary to produce an illusion of movements prior to the advent of cinema.

---

[19] The idea of counterfactual history gained (at)traction for me after seeing Kevin Brownlow and Andrew Mollow's *It Happened Here: The Story of Hitler's England* (1964). The rationale, heuristic gains, and limits of taking into account also what did not happen are explored in Niall Ferguson (ed.), *Virtual History: Alternatives and Counterfactuals* (London: Papermac, 1997).

[20] C.W. Ceram, *Archaeology of the Cinema* (New York: Harcourt, Brace & World, 1965) and Jacques Perriault, *Mémoires de ombre et du son: Une archéologie de l'audio-visuel* (Paris: Flammarion, 1981).

Theirs is still both a single-medium 'archaeology' and a story with a goal in mind and a happy ending, whereas one of the major lessons of 'early cinema' studies has been that it is best to avoid all forms of teleological narratives when it comes to film history. Also, besides the history of photography, the histories of the telegraph, the radio, the gramophone, and the telephone have always been much more intertwined with that of cinema than the specialists of the respective media felt comfortable with. A closer (but also more comparative) look at the period between the 1870s and 1900 in both the US and in Europe has shown that cinema (or rather: what would become cinema) had neither one specific origin (too many, and too arbitrarily fixed) nor purposive eureka moments (too serendipitous) or pre-ordained goals (too contradictory and too quickly obsolete). Under such circumstances, an archaeological account—in the first instance, in Michel Foucault's sense ("no origins", "questioning the already-said at the level of its existence", "practice as discourse/discourse as practice")—may initially have seemed to be no more than a holding operation. It discouraged the search of a single foundational moment or event and encouraged one instead to look for key trigger configurations or telling patterns.

For instance, if one starts from a non-media specific vantage point, as Jonathan Crary has done in his *Techniques of the Observer*—an art historian's re-examination of theories of perception in the nineteenth century[21]—one can uncover links previously missed. Challenging linear accounts of the cinematic apparatus, Crary highlights the importance of two devices, usually discussed as 'pre-cinematic' or 'proto-cinematic' but which in his account belong to other histories as well, where there is nothing *pre-* or *proto-* about them. Influential well beyond art history, *Techniques of the Observer* became a major resource for media archaeologists because Crary's main thesis, namely the emergence of embodied modes of perception that challenged Cartesian and Newtonian optics, was backed by a close examination of the phenakistoscope and the stereoscope. For film historians, his reconstruction of the extraordinary rich and above all popular culture of optical toys in the second half of the nineteenth century was a significant 'media archaeological' intervention. Rather than being able to draw, as had been assumed, a straight line of descent from the *camera obscura* to the projected image on a rectangular screen, which aligned cinema with the separation of the image from the beholder, historians must reckon with a rupture that occurred between the monocular perspective as developed during the Renaissance and the cinematic apparatus as it became standard in the early part of the twentieth century. If quite different ways of perceiving images, of reproducing images, and of configuring projected images in public or private displays existed in the nineteenth century, then the role of the magic lantern must be rethought within a visual culture that included the stereoscope and the phantasmagoria, neither of which could be straightforwardly appropriated as a 'precursor' of cinema. Indeed, they might come to be regarded as 'rivals' or 'alternatives', displaced at the time but not dead, and instead biding their time and awaiting their return. This also raises the question why these once-popular practices and their technological traces were so quickly 'forgotten' with the 'invention' of cinema.

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[21] Jonathan Crary, *Techniques of the Observer* (Cambridge: MIT Press, 1990).

If one adds to these considerations the other ad-hoc, piecemeal, and serendipitous experiments that took place simultaneously but independently of each other in quite different parts of the globe in order for images to create the impression of movement, then the invention of cinema turns out to be both mysterious and preordained as well as more fortuitous and far from inevitable. It is the very disparate and the dispersed nature of the inventions, intentions, and implementations we now associate with the projection and display of photographed and electronically transmitted moving images that endows cinema's past with its many still-not-exhausted futures.

The activity of recovering this diversity and to account for such multiplicity, to trace these parallel histories and explore alternative trajectories, is what is meant by "film history as media archaeology": not just the excavation of manifold pasts but also generating an archaeology of possible futures. Respect for these once possible (or still virtual) futures as well as for any past's singularity, alterity, and otherness also disabuses one from drawing straight lines to the present or from running straight lines from the present to these pasts. It thus makes us more cautious and refrain from claiming that, once we identify precursors, we may readily *adopt* them as our '(grand) parents' and freely *appropriate* their work for our own ends.

The answer, therefore, to the question 'Is media archaeology a supplement or a substitute to film history?' has to remain an open one. As a supplement, it may be able to tackle the intrinsic historiographical problems that film history has either overlooked or has raised but not been able to solve. Media archaeology would then be something like a revision of (as well as an extension to) classical film history, with a wider scope of pertinent phenomena and more inclusive in its understanding of the visual and material culture that is relevant to a historical analysis of cinema. It may even *look like the old, but would come* *to these old questions with new default values* and a distinctly contemporary vantage point. So different could be its new frame of reference that media archaeology might as well consider itself a substitute for film history. Yet as a substitute it could end up throwing the baby out with the bathwater, and, as we shall see, bypass cinema altogether or marginalize it even further when focusing its archaeological gaze on the origins and command (*arché*) of the digital media, and therefore concentrate mostly on electricity, electromagnetic waves, mathematics, algorithms as the material and conceptual infrastructures of contemporary media when determining media archaeology's agenda. This is certainly the view of someone like Wolfgang Ernst when he declares:

> Media-archaeological analysis [...] does not operate on the phenomenological multimedia level; instead it sees all so-called multimedia as radically digital, given that digital data processing is undermining the separation into the visual, auditive, textual, and graphical channels that on the surface (interface) translate data to human senses. By looking behind the human-machine interfaces (such as the computer monitor) and by making invisible communication processing evident, an archaeology of media, as the notion implies, follows Foucault's Archaeology of Knowledge in [...] reconstructing the generative matrix created by mediatic dispositifs.[22]

Walter Benjamin and the Modernity Thesis

I also follow Foucault, but in a different direction, backtracking to the moment when *The Archaeology of Knowledge* was indeed being read but when the idea of all media being "radically digital" would not yet have made sense, and thus the frames of reference were correspondingly different. When I first suggested the phrase "film history as media archaeology" in the late 1980s, my main intellectual references were Walter Benjamin and Michel Foucault. They proved useful, even necessary at a point in time, when I encountered problems of (film) historiography, which meant that I came to media archaeology through two related avenues. One was the desire to locate my then primary field of study—Weimar cinema—more concretely within the broader lineage of "modernity".[23] Modernity was synonymous with the city experience, as found in Georg Simmel's *The Metropolis and Mental Life*,[24] Siegfried Kracauer's *The Mass Ornament*, and Sigmund Freud's *Psychopathology of Everyday Life* (with echoes of the urbanist transformations of Vienna as well as Freud's asides about the dislocating and uncanny effects that modern forms of transportation had on perception and cognition). Additionally, and given the multi-media character of early cinema, it seemed appropriate to connect the emergence of cinema with the various tropes that Walter Benjamin had identified with the city and modernity in his *Passagenwerk* (the Arcades Project, known to me in the 1980s as *Paris: Capital of the 19th Century*).[25]

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[22] Wolfgang Ernst, "Media Archaeography" in Huhtamo and Parikka, 252.

[23] For a discussion of modernity in the context of film studies and film history (notably the influence of Walter Benjamin), see Thomas Elsaesser, "Modernity: The Troubled Trope" in D. L. Madsen and M. Klarer (eds.), *The Visual Culture of Modernism* (Tübingen: Narr, 2011), 21-40.

The other opening to media archaeology was a related insight, namely that cinema had brought about a change in the experience of time, its reversibility and retroaction within the irreversibility of time's arrow, but also that cinema was to effect an interlocking and mutual interdependence of work and leisure.[26] This insight came from studying the work of Eadweard Muybridge and Étienne-Jules Marey, whom I had initially taken to be the joint precursors of the industrial uses of the cinematograph—time and motion studies—until more detailed work on Marey and the publication of Anson Rabinbach's *The Human Motor*[27] persuaded me to see Muybridge and Marey as belonging to distinct traditions and divergent trajectories rather than as complementary.[28]

A further corollary of cinema's intervention in our notion of time is that it was closely aligned with changes in people's sense of space, location, and locomotion, of movement and mobility, and with the associated means of

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A critique of this use can be found in D. Bordwell, *On the History of Film Style* (Cambridge, MA: Harvard University Press, 1998), 140-147. For a general terminological clarification, see Peter Osborne, "Modernity Is a Qualitative, Not a Chronological, Category: Notes on the Dialectics of Differential Historical Time", in Francis Barker, Peter Hulme, and Margaret Iversen (eds.), *Postmodernism and the Re-reading of Modernity* (Manchester: Manchester University Press, 1992), 23-45.

[24] Key texts are Georg Simmel, *Die Großstadt und das Geistesleben* (1903) and Siegfried Kracauer's *Das Ornament der Masse* (1927).

[25] I first read Benjamin in an essay entitled "Paris: Capital of the 19th century" *New Left Review*, March-April 1968: 77-88.

[26] The interdependence of work and leisure as well as the alignment of cinema with different modes of transport is examined in more detail in the chapter "Cinema: Motion, Energy, Entropy".

[27] Anson Rabinbach, *The Human Motor: Energy, Fatigue and the Origins of Modernity* (Berkeley: University of California Press, 1990).

[28] For more on Muybridge and Marey, see the chapter "The Cinematic Dispositif (Between Apparatus Theory and Artists' Cinema)" in the present volume. See also Marta Braun, *Eadweard Muybridge* (London: Reaktion Books, 2010) and Laurent Mannoni, *Étienne-Jules Marey. La mémoire de l'oeil* (Milan: Mazzotta, 1999).

transport and propulsion, i.e. the railways, the automobile, the aeroplane, and the ocean liner. This would be the other paradigm of "modernity" complementing the trope of the city, and it would add two more authors who encouraged me to think of cinema outside and beyond its technological, optical, and narrative determinants, even though neither deals directly with cinema: Wolfgang Schivelbusch's *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* and *Disenchanted Night*,[29] along with Christoph Asendorf's *Ströme und Strahlen*.[30] Schivelbusch's books have become classics first, of how the railways imposed standard timetables and synchronized time in all walks of life, with speed of transport making space a variable of time (as it also was to become in cinema, through editing), and second, how 'projection' (in cinema) has to be understood as part of a broader dynamic of re-distributing sensory stimuli between night/darkness and day/artificial light in late nineteenth-century urban centers. Asendorf, by contrast, drew my attention to all the micro-energies passing between art and the beholder, which I translated into the screen-space and auditorium-space relationship, and how this dynamic supports, modulates, and layers the perceptual, bodily, and auditory registers of the spectators.

Walter Benjamin included cinema as an essential element of modernity in his essay "The Work of Art in the Age of Mechanical Reproduction", which is still the foundational text for the 'cinema and modernity' approach embraced by so many scholars, both in cinema studies and cultural studies. The issues raised by the ensuing debate (also known as the 'modernity and vision' controversy)[31] run parallel to and intersects with my media archaeological research, without directly converging, since my goals are different and I do not have a similarly polemical investment.[32] As part of my Weimar cinema studies I had, already from the mid-1970s onwards, given seminars and lectures in the US and the UK on Kracauer, Benjamin, and the Frankfurt School, as well as published a number of essays in the early 1980s that have since contributed to the revival of Kracauer studies. Together with Miriam Hansen and David Bathrick, I was also co-editor of a special issue on Kracauer for *New German Critique*.[33]

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[29] Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (Berkeley: University of California Press, 1986; first published in German in 1979) and *Disenchanted Night: Industrialization of Light in the Nineteenth Century* (Berkeley: University of California Press, 1995; first published in German in 1983).

[30] Christoph Asendorf, *Ströme und Strahlen: Das langsame Verschwinden der Materie um 1900* (Giessen: Museum der Alltagskultur des 20. Jahrhunderts, 1989).

[31] Polemically argued between David Bordwell and Tom Gunning. See, for example, the entry "Attraction," in *The Routledge Encyclopedia of Film Theory*, edited by Edward Branigan and Warren Buckland (Abington: Routledge, 2014), 45-49.

[32] See my essay "Modernity the Troubled Trope" (footnote 23), where I discuss the ramifications of the debate. The Chicago School of Film History, which since the 1990s had formed around Miriam Hansen, Tom Gunning, and Yuri Tsivian, was probably more representative of this modernity configuration than I was.

If Benjamin was not exactly news to me, when the great Benjamin revival eventually got underway, his rediscovery was nonetheless important also for media archaeology. This is because his newly established and seemingly unassailable authority within the humanities helped prize cinema away from the debates around 'Is it art?' and 'What is its media specificity' (which had dominated the field into the 1950s) or 'Is it a language and what is its ideological form of address and interpellation?' (which had dominated the debates in the 1960s and 70s)—and instead reminded us of its techno-materialist underpinnings.

For many of us, Benjamin also put a swift end to positivist history as well as to classic Marxian dialectical materialism. His "Theses on the Philosophy of History" as well as his allegorical readings of the political and social history of Paris from the 1848 revolution to the Days of the Commune and beyond were like a vast secret text that had to be deciphered layer by layer, across enigmatic incidents and poetic fragments. It was a tremendously appealing and inspirational form of research and writing, not least because Benjamin was also a media historian—with his short history of photography, his essays on surrealism, and last but not least, his essay "The Work of Art in the Age of Mechanical Reproduction (or Technical Reproducibility)".

Benjamin's interpretation of photography and film, of images in general and their singular material traces, seemed especially germane to media archaeology, since allegory connotes both loss and recovery, both fragments and gaps, both mortality and 'otherness'. Applied to film history, such an allegorical-archaeological gaze sharply contrasted with the vision and method of such eminent film historians as Paul Rotha, Terry Ramsaye, Arthur Knight, and William Everson. Even Jerzy Toeplitz and Eric Rhode—with all their merits—had largely ignored or dismissed the first twenty years (and part of cinema's prehistory) as aesthetically negligible because it was primitive, lacking purpose and stylistic signature. The general picture was of a murky sea of moving images on which floated a few masterpieces, while a succession of pioneers was able to pass to each other the baton of the art of film to come. This unsatisfactory state of affairs was the starting point (around 1985/86) of the so-called “revisionist” film history, for which I coined the label ‘The New Film History’ in a review essay of several books that had all appeared around the same time by Barry Salt, Steve Neale, Douglas Gomery and Robert C. Allen, John Belton and Elizabeth Weiss, as well as David Bordwell, Janet Staiger, and Kristin Thompson’s *Classical Hollywood Cinema*.[34]

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[33] Thomas Elsaesser, "Social Mobility and the Fantastic", *Wide Angle* 5, no. 2, (1982): 14-25; "Film History and Visual Pleasure: Weimar Cinema", in P. Mellencamp and P. Rosen (eds.), *Cinema Histories/ Cinema Practices* (Frederick: University Publications of America, 1984), 47-85; and "Cinema: The Irresponsible Signifier or 'The Gamble with History': Film Theory or Cinema Theory", *New German Critique* no. 40, Special Issue on Weimar Film Theory (Winter 1987): 65-89.

Noël Burch and “Primitive Cinema”

The review essay mentioned, only in passing, the single most important source for my turn to media archaeology, namely Noël Burch’s essay “Porter or Ambivalence” published in *Screen* in 1978.[35] To my knowledge, Burch was the first to posit a decisive rupture between early cinema up to 1917 (he called it ‘primitive cinema’) and the classical narrative cinema under Hollywood hegemony. He intended to break with forms of history writing that had relied on underlying notions of chronologically ordered succession, organic growth-and-decay cycles, dialectical reversals, and teleological inevitability. Taken out of its ‘primitive cinema’ frame of reference and applied to film historiography more generally, Burch’s call to arms challenged the traditional narratives of progress, (technicist) self-improvement, and (modernist) self-reflexivity but kept to vestiges of the great man theory, except that Edwin S. Porter replaced D.W. Griffith. Fritz Lang, F.W. Murnau, Sergej Eisenstein, and Jean Renoir were still the masters of modernist film form. However, their ‘firsts’ and ‘masterpieces’ did not advance either ‘technical perfection’ or ‘greater realism’ but made cinema a medium of abstract forms and conceptual thought. At the same time, Burch effectively replaced the steady progress narrative of film history with a much more lacunary version: he pointed to gaps, false starts, and dead ends, isolated experiments and contradictory conjunctures. But he also argued the case for distinct logics that separated the different periods of filmmaking and of cinema history, especially for the first decades of cinema but also for the

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[34] Thomas Elsaesser, “The New Film History”, *Sight and Sound* 55, no. 4 (Fall 1986): 246-251. In retrospect, it might have been better to speak of “new cinema history” because some of the revisionist historians I discussed were decidedly more interested in cinema (as urban sites, as business, as industry, as institutions) than in actual films.

[35] Noël Burch, “Porter, or Ambivalence,” *Screen* 19, no. 4 (Winter 1978/79): 91-105.