

Is Nothing New?

Turn-of-the-Century Epistemes in Film History

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Epistemes 1900/2000: Nothing is New ...

We are told that nothing is new. Out of the ancient zoetrope, or wheel of life, was evolved the gyroscope.... Half a century or so later, Mr. Edison produced his Kinetoscope – a band of progressive pictures passing before the eye applied to an optical peep-hole, and creating the effect of life and motion. During the Indian Exhibition last year, Mr. R. W. Paul, a clever electrical engineer of Hatton Garden, made and exhibited the kinetoscopes there, and noticing the rush for these marvellous machines, he wondered if their fascinating pictures could be reproduced on a screen, so that thousands might see them at one time.... Briefly explained, the whole thing amounts to this: Hundreds of photographs are taken with amazing rapidity – say, twenty a second – on an enormous length of celluloid ribbon. The photos are subsequently shown, magic-lantern fashion, also with extreme rapidity, the result being “living pictures” which completely baffle description; they *must* be seen to be appreciated.¹

Among the many contemporary accounts testifying to the impact first made by moving pictures, this eyewitness report of Robert Paul's demonstration at the Finsbury Technical College on February 20, 1896 can serve as a useful pretext for reopening the debate about the historiography of “early cinema,” and in particular, the place of the cinema around “1900,” when looked at from around “2000.” If “1900” has become a distinct “episteme,” especially when framed within our present historical moment of “2000,”² then the most evident reasons are not the round numbers *per se*. Rather, each year can stand metaphorically for a “turn”: that is, they mark the “beginning” of a momentous media change, as

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well as an “end” or *fin de siècle* of a particular worldview, signifying rupture and revolution, while in other respects showing many features of continuity and evolution. For the existence of such a turn – intuitively felt and demonstrably experienced by their respective contemporaries, yet also “misunderstood,” i.e., interpreted in very different ways – the two dates offer many telling and seductively teasing parallels: the mood of wildly optimistic speculation side by side with dystopian confusion; the sense of convergence of very heterogeneous phenomena in a single moment, device, or technology (1900: the Cinématographe and moving pictures; 2000: digitization and the web); bursts of dynamism and economic activity, but also the feeling among the effervescence that *nothing was new*, and that the “bubble” was bound to burst (for early cinema: the “chaser” theory, the 1903 “crisis”; for digital media: the dotcom era).

The *Strand* account opens up this discussion for several reasons. First, because it shows that cinema was as much understood as the *continuation of existing devices*, aligning itself with an evolving technology of vision and spectacle, as it was hailed as a breakthrough. Second, by mentioning the “clever electrical engineer” R. W. Paul, the writer highlights the crucial role of one of those (many) pioneers, usually overlooked in the clash of the titans Thomas A. Edison and the Lumière brothers over who can claim to have “invented” the cinema.³ Third, the passage is a reminder of the cinema's uncertain but productively promiscuous cultural status: a sensationalist fairground for some, and a scientific instrument to others. Paul's Theatrograph first demonstrated at a colonial exhibition and then at a technical college, before being exploited as urban mass entertainment, *bridged the not yet existing gap between “science,” “education,” and “entertainment.”* No parting of the ways yet, between a cinematic apparatus producing and propagating scientific “knowledge” for the good of humankind (or its obverse, for more efficiently killing men in warfare) and an apparatus offering illusionist spectacles that delight the eye, yet are also apt to provoke crises of ocular verification (“baffle description”). Finally, the statement that these “living pictures ... *must be seen to be believed*” will prove a prescient prediction for many of the subsequent discussions of the cinema, situated as it then was (and once more is) between truth and trust, realism and simulation, or perhaps more simply between knowledge of the world and belief – or make-believe – in the world.

The *Strand* passage, like Maxim Gorky's famous “Last night I was in the Kingdom of Shadows” article,⁴ is also a reminder of the excitement that greeted the “invention” in some parts of the globe.⁵ By investing the simple act of movement with such immediacy, and the physical world with such preternatural presence and expressive animation, this enigmatic and yet inconspicuous device appeared to possess taboo-breaking powers over life and death. Its deeply paradoxical nature and impossibly utopian aspirations were furthermore locked into the various names given to the new apparatus: Cinématographe, Kinetoscope, Biograph, Vita-scope, animatograph: the script of life as the perception of

motion. The conjuncture of “writing” (graphein) and “movement” (kinesis), of “seeing” (skopein) and “life” (zoe, bios, vita), accurately maps the semantic fields around which cluster not just mid- and late nineteenth-century obsessions, but an equally contemporary need at the beginning of the twenty-first century to redefine what is inscription, trace, and writing in relation to the body, the senses, with regards to consciousness and memory, and how these technologies of “vision,” “movement,” and “presence” connect to “life,” “energy,” “bio-power,” and the *élan vital*.

It is worth noting that “kinesis” in Greek connotes not only movement, but also “the activity of an organism in response to a stimulus such as light,” and is thus close to “photosynthesis,” as one of the most fundamental life-giving principles of certain organisms. This associates motion pictures with other more directly light-seeking or light-emitting phenomena. It reminds us of the different conceptions of motion and energy, which in the late nineteenth century shape the experience of (regular) movement and (linear) propulsion. But kinesis also already makes room for solenoid cells and cathode ray tubes, while nonetheless conjuring up ideas about transmission, about transport and transformation, about circular motion translated into forward thrust (in steam railways), and up-and-down movement producing rotation (in the combustion engine), with both thrust and rotation employed in the construction of this apparatus that emulated in equal measure the sewing machine, the telegraph ticker-tape, and the machine gun. These new physics of energy conversion joined up with a mode of writing, where natural phenomena “inscribe” themselves as images and visualized processes, without the intervention of the human hand or eye, as implied by William Henry Fox Talbot when he named photography the “pencil of nature,” and as manifest in Jules-Étienne Marey’s experiments in recording motion, pulse, and heartbeat in the form of graphic traces.

A century later, our cultural histories of the cinema, now increasingly reformulated under the overwhelming impact of the digital, are also unsure if and where to locate the epistemic break, or to assume that, indeed, *nothing is new*: is the digital image a *radical rupture*? Does it signal the death of cinema? Or does it amount to a mere *continuation* of mechanically produced images by other means? If around 1900 practitioners of the kinematograph still felt no need to decide between staging actualities and displaying scenic views, between telling stories and performing visual gags, between recording medical experiments and assisting the military, between developing prostheses for the hard-of-hearing and optimizing athletic performances, then the internet similarly combines the functions of the newspaper and the post office with those of book publishing and the library, all the while providing (or “emulating”) many of the services previously supplied by the “old” audiovisual media of information, communication, and entertainment: radio, gramophone, television, telephony – and, of course, the cinema.

Yet when trying to redefine the cinema in the digital age, we still oscillate, as did those who a hundred years ago played with the different metaphors, when

confidently or tentatively naming this new apparatus: whether thinking of cinema as the script of life in the form of *index* and *trace*, i.e., as an analog medium with a capacity to function as a language, or celebrating it for its *liveness*, *immediacy*, and *presence*, i.e., as bursts of magic, “special effects,” and attractions that “must be seen to be believed.” In this respect, digital media enlarge this early cinema problem of “language” (-graph) versus “life” (bio-) versus “vision” (-scope) by raising the issue of “visualizing data” across an even broader front of (invisible) phenomena, (life-like) processes and (abstract) patterns. Thus continuing what began more than a century ago with mechanical image capture, digital imaging has become an indispensable tool for scientific research, in fields as far apart as medicine and astronomy, ballistics and climatology. In the *Strand* passage quoted, the reference to chronophotography points backwards to the 1880s and to Eadweard Muybridge, but when read today, it also points forward to the remarkable revival of interest in the work of Marey. As mentioned above, this French scientist has once more become important, not merely because he tried to record movement in order to analyze its phases and stages, and not even because he managed to store time itself, but because he was one of the first to think about this problem of visualizing data in the form of “processes” or “becomings,” by constructing for the capture of this data all manner of graphic – including, but not limited to, photographic – devices.⁶ We recognize in him today’s scientific and social demand for visualizing magnitudes of abstract data in pictorial and graphic form, but also “scalable” and in “real time,” and thus in “movement,” i.e., in both motion *and* mutation.

Commentators on the cinema from around 1896 looked back to predecessors, but rarely without also trying to predict the future: flights of fancy, dark dystopias, panics, and prophecies belong as much to the historical moment as the more temperate technical descriptions and the confident genealogies of progress and perfectibility. Going even further than Gorky, writers managed to extrapolate from the initial impact of the kinematograph a surprisingly clear idea about the broader cultural field, seeing future developments in motion pictures not in isolation, nor as merely transforming vision and affecting perception. Some highlighted quite accurately what we now consider integral aspects of the cinema’s subsequent history as a cultural phenomenon, which includes sound, but also global transmission, instantaneity of reception, and even the specter of total surveillance: “All of this is wondrous and miraculous, and in its movement is life itself. The only thing missing are the noises and the voice, the phonograph. People dream of it, Edison works on it. And when the convergence has come about which combines the kinematograph, phonograph, cathode ray tubes, telescope, telegraph and all the other graphs that are sure to come, nothing will be left to hide, there will be no more distance, and no temporal delay.”⁷

This historical experience of amazed anticipation and anticipated amazement, this musing over life’s simulacra and the death of distance, this awareness that a powerful combination of technologies was about to be put in service not just for

recording, transmitting, and storing “life,” but also for simultaneity, mobility, and visual control, has more than anecdotal value. It confirms the epistemic parallels between then and now, because our present situation finds itself uncannily described and thereby also defamiliarized across such a voice of world-weary wonderment, coming to us like a time-traveler from a long-gone past. Together with the quotation from the *Strand*, it illustrates why it is so tempting to see “1900” as the most consistently illuminating matrix for comprehending the media change we are currently undergoing. Nevertheless, however inescapable the recognition of a shared sense of epochal shift may be, the awareness that we might be living merely through a phase change rather than a radical break is also quite sobering. The possibility that we are caught in a repetition and a “return” of a much larger wave pattern in human evolution must surely mitigate against too much hype about the revolutionary nature of the present – especially when our present is seen from an “anthropological” perspective as well as a technological one. It counsels skepticism as to the “newness” of the new media while providing a buffer zone of stoical acceptance, which we can shore up against the anxieties and uncertainties that always accompany periods of rapid change.

Pre-cinema, Para-cinema, Proto-cinema

Positing 1900/2000 as distinct epistemes, and identifying them respectively with the shift to “motion pictures” and “digital images,” necessarily foreshortens in each case several related and intertwined “prehistories.” For instance, in the field of cinema studies, the various parallels, anticipations, and echo-effects linking the periods between, say, 1870–1900 and 1970–2000 have been highlighted and continue to be elaborated by what is variously known as the “new film history,” “early cinema studies,” “revisionist film historiography,” “media archaeology,” and “visual culture studies.” These new fields of research have not always opened up because of digitization: the sense of a “turn” or a “return” in film studies, emerging as it did in the late 1970s and early 1980s, predated both the computer and the internet.

Yet as the number of projects and research initiatives setting out to explore the complex media landscape of the late nineteenth century from today's perspective proliferates, so have the problems of nomenclature and the boundary disputes between film studies, cinema history, art history, and image anthropology. For instance, the arrival of “digital cinema” – for many, still a contradiction in terms – has thrown into doubt the very definition of “what cinema is,” and it has rendered diffuse any single point of origin, any linear path of influence or causal chains that confidently prescribe particular trajectories or ascribe specific goals to either film or the cinema. Conversely, while this favors more open-ended, non-teleological accounts of the cinema's past as well as its “future,” it also blurs the

basis for meaningful definitions and distinctions. Thus, the more vibrant the research examining the double conjuncture 1900/2000 through detailed case studies has become, the more difficult it is to specify the epistemological grounds on which the comparisons are being made.⁸ Debates have begun to take shape around the implicit foundations, hidden tautologies, and warranted or unwarranted assumptions which underpin the enterprise of understanding the cinema across its multiple and intersecting nineteenth-century genealogies. One can see why some scholars prefer to accept the “death of cinema,” rather than rephrase its origins and function in terms of such widely used but loosely defined notions as “scopic regimes,” “visuality,” or “the cinema of attractions,” in the attempt to rescue the cinema in and for the digital age. “Modernity,” “cinema and the invention of modern life”: these and similar locutions continue to do duty as conceptual anchors, but are they merely the “sky hooks” necessary to bridge the respective indices of perceptual, sensory, and neurological transformation, bringing them under a common denominator, such as “history of vision,” while having to ignore the difficulties of doing so?⁹

It is therefore time to take stock, and in particular, to ask what manner of change and continuity, what forms of agency and determination, what modes of transitions and transformations were at work over the past hundred-odd years – in short, what kinds of historiography can help us understand the cinema in the twentieth century, while giving us some guidance for its survival in the twenty-first.¹⁰ Disclosing an interest, I undertake this retrospect not altogether as an outside observer, but also with a view to better understand my own involvement, as well as the issues that I used to think were at stake. These come under the following headings: first, *what was the initial impulse and urgency of this research into early and pre-cinema?* Second, in order to serve as a template for mapping post-filmic cinema, *how does the idea of early cinema as a distinct but possibly recurring episteme affect our view of film and cinema having a history at all?* And third, *how can the widening gap between “film” and “cinema” be bridged, and by extension, do we need an altogether different paradigm to reconcile the dual nature of cinema as trace of time (a “script of life”) and simulacrum of reality (a “form of life”), with which I opened this discussion?*

Early Cinema: “Nitrate Can't Wait” and the Policy of the Archive and the Festival

In trying to answer the first question – what has lain behind the impulse toward early cinema studies since the mid-1970s – I see apparently opposed impulses coming together: an urgent need on the part of film archivists to rescue the physical remains of the first twenty years of cinema (“Nitrate won't wait”) and, among many of the first generation of film scholars, a sense of frustration or fatigue with a turn in film theory whose main conceptual framework – the highly sophisticated

elaboration of the “cinematic apparatus” – remained stubbornly ahistorical and even counter-factual. If one adds a third constituency, namely the North American filmmaking avant-garde, some of whose theorists and practitioners (Noël Burch, Jay Leyda, Ken Jacobs, Hollis Frampton, Michael Snow) had always been on the look-out for a pedigree that was not simply anti-Hollywood, but predated classical Hollywood and the narrative fiction film, then it seems little short of miraculous that these very different needs and agendas found so many common platforms and theoretical positions around a new-found love of pre-World War I films, i.e., pre-dating the great masters of film art during the silent period.

The story of how archivists, supported by a handful of film scholars at an International Federation of Film Archives (FIAF) meeting in Brighton in May 1978, managed to raise public awareness and genuine enthusiasm for early films has been told several times, without losing either its inherent improbability or its retrospective inevitability, when one adds the number of bold festival organizers, mostly in Italy, seconded by historians of both “old” and “new” film history, who were soon joined by avant-garde specialists from New York and elsewhere. This movement didn't only produce the intellectually coherent discourses by acknowledged experts and scholars that legitimized the efforts of FIAF, eventually generating a minimum of governmental funding to help preserve the endangered heritage of nitrate-based film.¹¹ The confluence of serendipity and necessity, of theory and practice, of showing and preserving can itself stand as an emblem for the contradictory–complementary dynamic which animated early cinema studies and continues to radiate as it promises to refashion not just the first decades, but the first hundred years of cinema – and beyond. Success for this rescue action was also assisted by the “archive” emerging (among art historians, philosophers, and new media scholars) as an intellectual trope that redefined a collection as an active resource and a political tool.¹² While in Europe the audiovisual heritage was elevated to an instrument of national identity-formation, serving tourism and local pride, and across film festivals, becoming a priority in cultural politics, in the United States it was the commercial potential of film libraries that began to be recognized and exploited, before collectors, academics, and artists rallied round the scraps and “orphans” of film history.¹³ In all these cases, the increasing use of film and photography to support heritage, cultural memory, and acts of commemoration hints at the importance of images and sounds in determining not just the “medium,” but the “content” of history for future generations.¹⁴

Thanks initially to the Pordenone and Bologna festivals, there is now access to the holdings of film archives, and each year's festivals boast newly restored films, once more projected on the big screen. Film historians were finally able to establish and personally verify crucial “facts” about the first twenty years of cinema, often substantially revising the traditional accounts of the grand masters of film history, such as Jean Mitry, Georges Sadoul, Jerzy Toeplitz, and William K. Everson. These men had tended to dismiss this period for being primitive, childish, and

unworthy of being called an art, not least because so little was available for close inspection, but also because their priorities lay elsewhere. It soon became evident that many such judgments, and the chronologies derived from them, were based on historiographic models – organic models of growth and decay, cyclical models of realism versus fantasy – that were inadequate, contradictory, and often flawed.¹⁵ Several basic assumptions came under scrutiny and proved to be in need of revision: for instance, that film history was the history of individual films; that the development of cinema had been in the direction of manifesting the cinema's specificity as an art form – and thus attaining only in the 1920s the kind of aesthetic reflexivity we associate with high modernism. Or the contrary assumption, that cinema has always been progressing toward greater and greater “realism,” that is to say following the direction taken by the low mimetic arts and by popular media culture. Both these competing teleologies are now generally viewed as problematic, an insight no doubt helped by the more general recognition that the fierce debate around the division between high culture (“art”) and mass media (“commerce”) has itself become obsolete.

Especially the idea that the *drive for realism* determined the logic of cinema's history – from silent to sound, from sound to color, from color to wide-screen (this was intended not only to support a linear progress model, but was also invoked to explain why the cinema became a narrative medium) – had to be abandoned in the light of the “new film history.” When scholars began to combine the written evidence about early cinema with what they saw on the screen, their understanding of the “development” of cinema became considerably more complicated, notably with respect to *sound* and *color*, *medium specificity*, *narrative* and *photography*: early films were rarely silent, and the technology of sound synchronization was already very sophisticated by around 1906.¹⁶ Many of the films were not in black and white, but stenciled, tinted, or toned, which is to say, “in color.” Once one appreciated the sophistication in staging, the handling of space, the choreography of movement, or the many cultural and topical references in film from around 1900, it became clear that (high modernist) “reflexivity” and (low mimetic) “realism” had never been opposite poles. New theories of “intermediality” and “hybridity,” of “media intertexts,” “crossover,” and “remediation” came to bridge the gap, becoming the default values for film content or genres migrating across “platforms” in the digital media.¹⁷

Likewise, the identification of cinema as a storytelling medium, and thus the emergence of “narrative,” pointed to different determining factors, having to do as much with demographics, with struggles over control and institutional power as with aesthetics, the legacy of the realist novel or the cinema's manifest destiny.¹⁸ First avant-garde cinema in the 1970s, then post-classical cinema in the 1980s, and eventually digital cinema challenged the primacy of narrative: each phase gave a boost to the mounting evidence that showed how early cinema had developed a whole range of non-narrative but nonetheless popular genres, leading to the widespread adoption of the term “cinema of attractions” in order to characterize

an aesthetics of presentation and display (as opposed to representation and narrative integration). It also led to identifying the whole period of early cinema as “cinema of attraction,” and beyond that to making it the name for a transhistorical mode, sometimes “dominant” and sometimes “recessive,” in analogy to genetics and evolution.¹⁹ Finally, reversing the historical telescope once more, the extraordinary resurgence of *animation* in digital cinema through Disney, Pixar, and DreamWorks blockbusters (as well as online) helped refocus film historians’ awareness of the rich history of animation throughout the twentieth century, which had been neglected (or recessive) in comparison with the live action feature film, but which offered a more or less smooth transition from photographic to digital modes while providing the latter with a respectable and aesthetically rich pedigree reaching back into early cinema and even pre-cinema.

Revisionist Historiographies

These apparent analogies raised the usual questions of what in historical research counts as evidence, i.e., how legitimate is it to project our own preoccupations onto the past, or how selective can we be when drawing such parallels? It also posed, with respect to the written sources on early cinema, the problem of how accurate they are, in the sense not only of promoting and advertising these new “attractions,” but also in describing them “objectively.” Hyperbole often ruled the day, among the boosters as well as the detractors. How representative is the relatively small sample of the films that, despite all the efforts made, has survived? How can we craft plausible explanations of audiences, their viewing habits and pleasures, from the scarce records left in newspapers and company archives – especially considering that much of this evidence comes from sources professionally hostile to the cinema: educational reformers, temperance societies, and literary authors who, faced with competition from moving pictures, feared for their livelihood?

The broadly revisionist approach to cinema history, which took hold in the field from the mid-1980s onwards, may have agreed that “the received wisdom has to be challenged bit by bit, every piece of information has to be checked, rechecked and if necessary, revised”²⁰; there was, however, less consensus about the historiographic implications that might follow. Was it merely a matter of reevaluating the available evidence? Was it a matter of bringing new kinds of evidence to bear? Or was an even more radical approach necessary that did not try simply to fill in the gaps in our knowledge, but began to regard the gaps as meaningful in themselves (because they prompted questions about institutional power and its effects on the state of knowledge)? Why, for instance, was the knowledge about sound and color in early cinema repressed for so long? Why did industry-standard sound film take so long to “mature,” and how did “the talkies” eventually come

about, once one accepts that its invention, recognition as innovation, and normative implementation must be treated as separate processes? Why did color disappear in the early 1920s and not reappear until the late 1930s: was it due to economic factors, technical issues, or aesthetic prejudice?²¹ Many of the standard features we now associate with cinema besides color photography or synchronized sound, such as 3D or safety film, were “discovered” well before they were adopted by the film industry or became the “norm” and “good practice.” Solving technical problems was no guarantee that these might be implemented. Too many other variables, from cost factors to patent rights, from monopolistic exploitation of a specific market to trying to gain a competitive edge over a rival, came into play as “determinants”; they required broader explanatory schemes of how the cinema came about, or demanded more sophisticated models to account for its rapid changes in the first fifteen years, and why these were followed by much slower transformations in subsequent decades. More generally, such asynchronicities suggested even more fundamental questions about the “delay of cinema,” an issue already raised by André Bazin: why were projected moving pictures so long in the making, when most of the necessary scientific principles had been known for some fifty years prior?²²

What became increasingly clear, in any event, was that *no inevitable logic about the development of the cinema* could be derived from either the basic technology (chronophotography, projection) of moving images, or the physiological effects on spectators (persistence of vision/illusion of motion). Powerful social forces had to be present, and their impact would prove to be contradictory. For instance, instead of assuming the relentless progress, popularity, and thus inevitability of motion pictures, could it be the case that some of the great minds of the nineteenth century were busy imagining vision machines and communication technologies other than those based on photography, but on electrons and photons? And what if the public had been led to expect a different media revolution – perhaps around the telephone or the telegraph? The cartoonists and satirists drawing for the popular magazines of the time certainly seemed to think so.²³ For the film historian such evidence suggested that in addition to the history of what *had been* the case, there should be due consideration of the histories of what *might have been* the case, or at least a positive awareness of apparent dead-ends and paths not taken. While some gaps in our knowledge can and should be filled,²⁴ others need to be highlighted precisely as gaps, in order to become telling evidence: I have called this the “dog that did not bark” forensics of film history.²⁵ Likewise, what seemed a dead-end around 1900 (stereoscopy, for instance) could reveal itself prescient and pioneering a hundred years later, making the “losers” of yesterday the forebears of the “winners” of tomorrow.

Evidently, such rethinking of early cinema and proto-cinematic practices runs counter to any linear conception of cause and effect. But it broadens the range of possible causal factors while also suggesting that retrospective revision, rewriting, omission, or even repression – whether for ideological, aesthetic, or economic

reasons – inevitably inflects historians’ work: in order to produce an orderly account of film history at all, they often have to “select” quite drastically. It confirmed that it does not make sense to speak of “progress” as the overall dynamic of this history, nor does the evidence support the notion that humankind had always been dreaming of the cinema. On the contrary, a *historiography of unintended consequences* is almost as plausible as the more orthodox idea of *an invention whose time had come* when one is trying to account for the enigma of cinema’s “multiple discovery” (also known as “evolutionary epistemology”), i.e., the fact that various individuals in different parts of the world seemed to have been working on similar devices for capturing movement, reproducing it photographically, and making it public by means of projection.²⁶

Beginnings, Becomings, and Fateful Divisions

Thus, the first major achievement of the “revisionist” approach to film history has been a rich, but also confusingly complex and at times contested account of the so-called beginnings. The different names, dates, devices, and applications associated with the “invention of cinema” necessitate the conclusion that *the cinema has far too many* and seemingly incompatible points of origins in the nineteenth century, *for there to be a single “history,”* however we decide to conceive its trajectory or deconstruct its teleology.²⁷ Consider how unstable were the minimal conditions that eventually led to exactly dating the cinema’s invention: chronophotography was a precursor, but did not itself qualify as cinema, even though Georges Demeny’s modifications put him “ahead” of the rest, at least in Europe, while in the United States, the Latham family’s Panoptikon, Francis Jenkins and Thomas Armat’s Phantoscope, as well as William K. Dickson all showed projected motion pictures (some to a paying audience) during 1895; the Skladanowsky brothers’ Bioskop performance, because it showed their films on twin projectors, was disregarded, even though their performance before a paying audience preceded that of the Lumière brothers. Why was Emile Reynaud’s Théâtre optique, using a strip of paper with painted images projected onto a screen, not good enough as the “birth” of cinema, considering the subsequent importance of animated film? Why should only images taken with a camera and fixed on celluloid qualify, now that we have digitally produced images? Why not Edison’s peephole Kinetoscope, instead of the Lumières’ (later and, some would argue, derivative) Cinématographe, adapted from Paul’s Theatrographe? Why did it make a difference whether these films were first shown to a scientific community or a paying public?

The decision that only the latter audience finally counted as relevant is testimony to a fundamental split, unknown in 1895, but coming later, possibly after World War I: the rigorous division between the entertainment and

non-entertainment uses of the cinematic apparatus. As a result, probably more than a third of all recorded images on celluloid (be they for scientific, military, instructional, or industrial purposes) dropped out of film history – until the 1980s, when early cinema studies began to look at all types of film that had survived. To this was added the awareness of just how decisive warfare and surveillance had become in developing the basic technologies of cinema (and digital media).²⁸ It led to a veritable archival renaissance: borne by collectors, artists, and aficionados, it generated a groundswell of conservationist love and respect for “home movies,” “orphans of the cinema,” “industrial films,” “found footage,” and “second-hand films.”²⁹ In the light of such revisionism, the four or five different qualifiers that were necessary to make December 28, 1895 the date and the Lumière brothers the “inventors” of cinema now seem even more arbitrary and self-interested. It is not as though the Cinématographe did not deserve the pride of place it occupies in any account of the history of cinema, if only because the name which they gave to their machine – among the many other names – is the one that was almost universally adopted or translated into other languages. The Cinématographe was also in many ways technically superior to its predecessors and competitors, and its major features were quickly adopted or copied by everyone else. But as the now established chronologies demonstrate, if one wants to retain the Lumières as the true begetters of cinema, one had better either abandon the criterion of “firsts” or move their “first” to the earlier, non-paying event, on March 22, 1895, when Louis Lumière gave a talk, which he illustrated with *Sortie d'usine* (*Workers Leaving the Lumière Factory*), at the Société d'encouragement pour l'industrie nationale in Paris. One had also better add to their achievements the remarkably international infrastructure already put in place by their father, thanks to the success of their previous “invention,” the fast emulsion photographic plates which they manufactured in Lyon but distributed and sold almost all over the world – a network of local distributors ready for use when it came to propagating the Cinématographe.

The mention of R. W. Paul, as the inventor from whom Antoine Lumière acquired the machine that his sons adapted, draws attention to the role that globalization, piracy, and “reverse-engineering” already played in the 1890s.³⁰ But the “engineer of Hatton Garden” also stands for forces larger than himself: Paul, and his associate Birt Acres, despite their science background, also had contact with the more sensationalist sides of spiritist photographic séances, a fact that usefully evokes the long history of the phantasmagoria and “embodied vision,” which have become of special interest to historians of visual culture,³¹ as well as to artists such as Zoe Beloff. Here, too, our contemporary interest in “embodiment,” and our experience of images that immerse the spectator, rather than come to us via the rectangle of a delimited screen, favor the “rediscovery” or “recovery” of other genealogies of the cinema, ones that had previously been discarded or downplayed as too close to the fairground to be “art” and too much geared to special effects to be a realist medium.

Against Convergence: The Cinema Does Not (Yet) Exist

One of the payoffs for all these complications of origins is that it puts up for inspection the implicit criteria historians have applied when charting the development of cinema as “convergence.” For instance, traditional histories contain parameters that may appear essential and fixed at a certain point in time, but turn out to be much more relative and variable: from today's perspective, the idea of grounding the origins of the cinema in the confluence of *photography*, *projection*, and “*persistence of vision*” is no longer self-evident or necessary. Instead, it reveals a specific historical, technical, and aesthetic bias (as well as ignorance about human perception). It makes it plain that cinema history has been written not only from hindsight, but with some very particular preferences embedded, which later proved to have been too restrictive to serve as a comprehensive history: not only are photography and projection no longer necessary conditions of “cinema”; as immersive experiences such as IMAX or 3D as well as interactive environments, such as computer games, have become increasingly associated with the modern cinema experience, so too will the phantasmagoria of the eighteenth century or the stereoscopic views of the nineteenth century seem increasingly legitimate “precursors” of cinema – as indicated by the renewed interest in their technical and institutional, but also cultural and aesthetic, histories.³²

There is another advantage to the multiple lines of descent of the basic technology, along with the many optical toys (Zoetrope, Mutoscope, stereoscope) and public entertainments involving moving images (magic lantern shows, Pepper's Ghost, Kaiser-Panoramas) that historians of the cinema are now aware of: they remind us that *for the first decade, there was no such thing as the “cinema.”* The name was not uniform and there did not exist in most countries the institutional or industrial frameworks for producing, distributing, or exhibiting “living pictures” in a uniform way. Often a lawless, fly-by-night, one-man business, it took entrepreneurs from other branches of popular entertainment, such as Gaumont, the Pathé brothers, Paul Davidson, Lyman Howe, Eugene Cline, and many others, to make of the moving picture invention a profitable business and of the business an industry. Traveling theaters were as common as fixed sites, and even these could be as different as a variety theater, an emptied out store, or a bar.³³ It took over a decade before films became standardized products in length or subject matter, and almost another before the format of an individual performance – whether made up of a film program composed of individual shorts or “numbers” or consisting of a main feature film – had stabilized around a reliable set of expectations which could be provided to patrons on a regular basis to create the habit we know as “going to the movies.”

Why are these seemingly arcane aspects of early cinema still important to scholars? They confirm that histories of the cinema are hard to write, whatever aspect one chooses to concentrate on: major films and directors, technical innovations,

audiences, or national cinemas, stars and genres, artistic movements, and “new waves.” None will be able to specify the “essence” of the cinema, and all will have weak causal chains to link them over time into a coherent sequence. Hence the paradigmatic role that early cinema has played in this revival of film history on so many fronts: by studying the dynamics of the different constituents of what became the “institution cinema” at the points of formation and crystallization, and at close range, across different countries, over a relatively brief period of time, patterns of interaction appeared which proved useful in establishing “early cinema” as a kind of template. Tracking the form, function, and genres of short films during the early period, for instance, not only helped to understand how and under what circumstances the longer narrative film emerged and established itself as the norm; it also offered valuable insight into the “return” of short films, such as one can observe in a very different medium but under comparable circumstances on YouTube. It revives the early cinema practice of “programming,” of talking back, and of direct address to the audience.³⁴ Similar “returns,” as we saw above, can be charted for animated film, or for the revival of interest in non-fiction film of all kinds, whether in the form of video installations, mash-ups, or found footage compilations. A film history that had, with the phasing out of celluloid-based photography, seemed closed and complete – so much so that lamenting the “death of cinema” had become a commonplace – has opened up again, because the very definition of “what is cinema” has once more been called into question, and become the subject of passionate debate. “Too many origins” would seem to translate into “more returns and new becomings,” just as “no single point of origin” holds out the promise that the cinema may know multiple “destinies.” After the “total work of art” as the ideal of the 1920s, and “realism” as the *telos* of the 1930s, perfect illusion that of the 1940s, and – in Europe – the return to realism as “disclosure” since the 1950s, it is now “immediacy” and “simultaneity,” “interactivity” and “presence” that compete for pride of place among desirable goals.

Film History or Cinema History

This leaves an important issue I want briefly to consider, and to which I alluded earlier when asking on what grounds the comparisons between “early cinema” and contemporary digital media can be made pertinent. The issue, in short, is how to grasp at a conceptual level the object that is supposed to have a history, or on the contrary, eludes all histories, because “it has not yet been invented.”³⁵

I have already mentioned that one of the factors which kept the interest in early cinema, its “prehistories,” “origins,” and “parallel histories” a vital issue, beyond the crisis of preservation and archival custodianship, was the intellectual ferment in the 1980s around film studies as it embraced (or extended itself to embrace) cultural studies. The powerful paradigms coming from structuralism, Marxism,

and psychoanalysis had reshaped the way moving pictures were understood, but the synthesis, by the mid-1970s, of much of this work in the form of apparatus theory, gendered subject position, and interpellation also raised many questions as to the plausibility and historical evidence for such totalizing and all-encompassing theorems. Once one had a look at the films themselves, many of these claims did not hold up: what was up there on the screen was just too effervescent, too enigmatic as well as too expert, too assured in its otherness from what the theories would have predicted. Furthermore, within this intellectual conjunction, the work of Michel Foucault had particular impact, since it explicitly promised to give ideological critique a precise historical grounding. Whereas it is possible to see semiotic and psychoanalytic film theory as text-based and thus still beholden to a hermeneutics derived from literature (the host discipline of most film studies until then), Foucault's emphasis on institutions, on the fact that it is power (rather than meaning) that is embedded in language, while practice may function as regulatory and normative discourse, also offered film studies new directions, new energy and self-definition.

Parallel to Foucault's influence on Noël Burch, for instance, who was a key figure in laying the theoretical groundwork for early cinema studies,³⁶ a number of film historians began to challenge, from the mid-1970s onwards, the kind of linear film history that concentrated on "firsts," on lone pioneers, "eureka" moments, and "masterpieces." They began to study instead the prehistory of cinema in such venues as music halls, burlesque and vaudeville theaters, concentrating on the physical sites of spectacle and their role in the urban fabric as well as on the economics and logistics of exhibition. This original research bore fruit in Charles Musser's and Robert C. Allen's work on exhibition patterns and the defining power of programming. It found its polemical edge in 1984 when Allen (in a book co-authored with Douglas Gomery) famously declared that for much of what can be considered the pressing questions in film history, it was neither necessary nor desirable to actually watch films.³⁷

Thus, one of the most obvious characteristics of the "new film history" in the 1980s was, precisely, that it was *no longer film history*, but *cinema history* – concerned with the institutional emergence and internal organization of the different branches of the film industry; with the age, class, and gender demographics of the audience; with the screenplay as blueprint for production schedules and the division of labor; with the physical spaces of spectatorship, i.e., cinema architecture; but also with the locating of cinemas in residential or commercial neighborhoods; and with much else besides.³⁸

But to put "film" on one side and "cinema" on the other would be too neat a distinction. One of the first publications to have "early cinema" in its title was actually an attempt to get historians of (the institution) cinema to enter into dialogue with the historians of film (-form), not least in order to break up the division between narrative and anti-narrative factions in film studies and the avant-garde by trying to reorient the (historical) grounds on which we could begin to explain the

cinema's turn to narrative, a turn that most film historians had taken for granted and as being inevitable. Hence its subtitle "Frame, Space, Narrative," and its division into sections on "Film Form: Articulations of Space and Time," "The Institution Cinema: Industry, Commodity, Audiences," and "The Continuity System: Narration, Continuity-Discontinuity-Alternation, European Alternatives to the Classical Paradigm."³⁹

Two of the strongest voices to emerge from this debate over narrative in the volume were those of Musser and Tom Gunning: both with roots in the avant-garde and both formidable in their knowledge of early cinema, not least because they were students of Annette Michelson and Jay Leyda, as well as familiar with the work of Noël Burch, who shuttled between Paris and New York and bridged the gap between theory and practice, but who was also a partisan on the side of anti-narrative and the avant-garde. What is revealing about the debate between Musser and Gunning (which has continued over the decades)⁴⁰ is not just how complex and nuanced, but also at first glance how paradoxical their respective positions are: Musser, who argues for the primacy of "screen practice," and – with his detailed studies of exhibition and programming – would seem to be firmly on the side of cinema history, is nonetheless a staunch defender of "narrative" as an organizing principle even for early cinema – not at the level of the individual film, but with respect to the overall experience of the audience, thanks to the programming skills and the "control" of the exhibitor. Gunning, on the other hand, whose book on Griffith elaborates one of the most sophisticated accounts for the rise of narrative as the outcome of several compromise formations (rather than as the cinema's destiny), argues against narrative as the default value of early cinema, yet he does so generally on the basis of a close and detailed study of the films themselves, their formal characteristics, as well as the presumed reactions of the audience. The paradox is thus that Gunning, giving priority to film form, would here be the *film* historian, but *a-narrative*, while Musser, prioritizing the programming context, would be the *cinema* historian but insist on being *proto-narrative*.

One could add to this that André Gaudreault – a collaborator of and occasional co-author with Gunning in those years – has added valuable knowledge to Musser's argument, with his work on the *bonimenteur* or film lecturer, an instance of "narrative integration" in the context of early cinema exhibition. All three, I imagine, would consider themselves cinema historians, yet they would insist, *contra* Allen and Gomery, on the value of closely studying films. Evidently, I am simplifying these positions to draw attention to the intricacy of the factors in play when attending to the "birth" of narrative cinema, but it does underscore how much *theory* (aesthetics, epistemology, hermeneutics) is at issue in questions of *history*, and how much historical detail may be required to have an informed view of a theoretical issue – in this case the emergence of "film narrative."

With the profusion of platforms on which we are now accustomed to watching films, some *film* scholars have insisted that what makes a film a film is that it is shown in a *cinema*, further complicating the question of what kind of history the

cinema can have, if any. Aware of all possible surfaces – from IMAX screens that envelop us and eliminate the boundary of the frame (and thus the off-screen space so crucial to classical *mise en scène*), to screens on hand-held devices so small that ambient space and light constantly intrude – they insist that it is analogue images on celluloid, shown in a darkened space with raked seating, that constitutes the subject of film history. Cinema is the proper term for the moving image, with the frame edges clearly marked, projecting a two-dimensional image that gives the aesthetic illusion of depth of field, and not, for instance, a 3D film that requires special glasses to be perceived. Dudley Andrew puts the case polemically: “Not every roll of photographed celluloid belongs to the category ‘cinema’ as it makes sense to me to define it. Naturally, it is all a matter of definition. So let me be forthright: the cinema came into its own around 1910 and it began to doubt its constitution sometime in the late 1980s.”⁴¹ Excluded from cinema, in other words, are much of what I am calling here the episteme 1900 and the episteme 2000, or “early cinema” and “digital cinema,” and moot are all the possible parallels I have been carefully constructing and deconstructing between these two periods of accelerated change. What remains of *cinema* is the supposedly stable middle part, and there, above all, the *films* of the great masters of cinema. In other words, a set of – to some limiting, to others enabling – conditions is required to forge a new link between film and cinema and vice versa, whereby the cinema is now defined as a particular public place, usually selling tickets to separate performances. It is made up of an architectural ensemble which projects moving images onto a large screen, and whose images usually constitute a film that tells a story. Although on the face of it not an unreasonable and maybe even a pragmatic definition of the cinema, the limiting conditions it implies (just like the ones that set the birthdate of the cinema) are designed to draw boundaries that keep at bay scientific films, industrial films, training films, military tests, or medical experiments recorded on film. The reasons these boundaries have become necessary, however, are the mutations filmmaking has undergone in the past thirty years, and while, by default, they risk marginalizing documentaries, animation, or “abstract” films from every period, they are designed to raise the bar also for the admittance of digital cinema; or, at the very least, they mean to put it in quarantine for the time being.

The Cinema is Always Complete

Is there a way around this conundrum of the *cinéphile*, who would rather consent to the “death” of cinema than have it bastardized by digital technologies and hybridized by films being shown on all manner of unsuitable surfaces and in all kinds of unseemly places? I sincerely hope so, but rather than make any specific suggestions in this direction, I want to put forward, by way of conclusion, an

equally pragmatic set of definitions that sees films and cinema as distinct, while nonetheless keeping in mind that ultimately they belong together. When speaking of film, for instance, it is worth pointing out that it can analyze movement or synthesize it, that it can be used to record and document the material world, as it presents itself to this particular optical apparatus. But film also allows for the possibility that something has been created solely for the purpose that the apparatus record it, giving it the illusion of being material and real. Might it therefore be possible to say the moving image has many histories, not all of which belong to the cinema (but may well belong to film)? Conversely, much belongs to the history of cinema that does not involve actual films: on the one hand, exhibitors make their money out of selling soft drinks and other concessions (for which the films act as bait), and on the other hand, “going to the movies” is something people decide on, as part of their social life, often before they have settled on any particular kind of film. Put like this, the film/cinema distinction raises questions of a different nature: does the cinema provide goods or services? Do we pay for a product or an experience? And what is it that is being bought and sold, i.e., “commodified,” in such a transaction: our time and our attention, our subjectivity, or our mind, our body, and the senses?

The emphasis on spectatorship in film studies over the past thirty years, where such questions have been tied to the politics of representation, can be presumed to have favored cinema history over film history. But this would be to overlook that in the academic context, close attention to texts has always been a non-negotiable given, so that the shift to the spectator produced first of all “spectators in the text” and then “spectators through the text,” leading to the already mentioned theories of subject positions and suture – precisely the kind of abstractions that new film history tried to get away from – without thereby getting that much closer necessarily to the “historical spectator.”

Nonetheless, the *shift of emphasis from film history* (as the history of films) to *cinema history* (as the history of the interdependence of film form, film technology, institutional practices and discourses on one side, and audiences, demographics, and consumption on the other) did constitute a change in the overall object of study. It responded to the crisis of confidence in film-as-text, but it also helped to specify in concrete historical terms what was meant by the cinematic apparatus, which turned out not only to be less monolithic and rigid than its theory (with its pedigree stretching back to Plato's parable of the cave, Alberti's central perspective, and Descartes' optics, all the way up to Lacan and Althusser) but also proved itself a more adaptable and thus more historically variable “*dispositif*.”⁴² If *dispositif* is indeed to be a useful term to describe the assemblage of heterogeneous elements that have to work together in order to produce certain effects we identify with the cinema, then it needs to be grasped as more mutable in both its constitutive elements (physical arrangement of space, absence or presence of sound, mode of address from the screen or from the auditorium) and its effects (the capture of the spectator by illusionist make-believe, the affective and sensory interplay between

spectator and screen, the “embodied” or haptic dimensions of the film experience). The new film history as *cinema history* opened filmmaking, filmviewing, and filmgoing to the wider sociocultural context, breaking with the argument of film-as-art as well as with its mirror obverse, film-as-ideology. As I have mentioned, it made cinema an integral part of the study of commodities, leisure, and consumption, a test case for cultural studies, as well as paradigmatic for other late nineteenth-century visual culture practices. From dioramas to world fairs, from wax museums to salon paintings, the cinema became crucial to a plethora of histories, cultures, and subcultures dealing with imaging technologies and mediated sensory perception across a vast and expanding spectrum. In the process, it complicated the question of “what is cinema” as well as making it even more unlikely that there would be agreement on what its “history” might be.

What then are the conclusions I can draw from the three questions I set out to examine? The answer to “why early cinema” is that it remains the privileged site where the issues of history and historiography intersect with matters of theory and method. The period requires an ecumenical approach, across case studies that can highlight the uniqueness of the moment as well as its salience for the situation as a whole. The example of early cinema suggests, as the ground-rule for studying the cinema of any period, including the present one, that at any given point in its history, the cinema *has always been in transition and transformation, as well as achieved and fully aware of itself*. In other words, if there is no “infancy” then there is no “maturity,” and there can be no “death” because there was no “birth.” From its inceptions – as my opening section showed – the cinema was both a continuation of old media and the start of something new, and many of its potential functions and uses, suppressed or ignored for much of its history, may return, may be reinvented and reevaluated, as indeed has been the case in the past twenty years, as parallels, both profound and superficial, both structural and epiphenomenal have suggested themselves between earlier periods and the present, or have led us back to the past from the present. The answer to my second question, *how does the possibility of recurring epistemes affect our view of film and cinema having a history at all*, would then be that in place of a single master-narrative, or even multiple histories, we might do better to consider seriously that the cinema, as both episteme and symbolic form, obliges us to revise our idea of history, of agency, and causality, rather than conceding that cinema is now “history,” having been superseded and marginalized by digital media.

As to my third question, *do we need an altogether different paradigm to reconcile cinema as trace of time and as form of life*, posing it as an issue may have to be our best answer. Theodor W. Adorno once wrote with reference to Kant and Hegel: “in the vulgar question of ‘what Kant or Hegel still have to tell us today,’ one encounters the arrogance of those who think that ‘coming after’ already gives one the right to put oneself above the dead. The possibility is not even raised that the proper question might be: ‘how do we appear to Hegel?’”⁴³ Applied to the pioneers of what we now call “cinema,” the question would be almost the same: “what can we tell

them *now* that they did not know *then*?” And to have “even raised it” in my mind may have been what prompted these thoughts in the first place, leaving me with the hope that if the cinema cannot have a single history (and why it will continue to have many theories), it is because its many pasts contain – and have retained – too much that is present to ever surrender its presence.

Notes

- 1 “The Prince's Derby Shown by Lightning Photography,” *Strand Magazine* 12 (July–December 1896), reproduced in *In the Kingdom of Shadows: A Companion to Early Cinema*, eds. Colin Harding and Simon Popple (London: Cygnus Arts, 1996), 32.
- 2 For an explanation and justification of the “episteme 1900,” see Annemone Ligensa and Klaus Kreimeier, eds., *Film 1900: Technology, Perception, Culture* (New Barnet: John Libbey, 2009); and François Albera and Maria Tortajada, *Cinema Beyond Film: Media Epistemology in the Modern Era* (Amsterdam: Amsterdam University Press, 2010).
- 3 On the revival of scholarly and popular interest in Paul's role in British cinema, see the British Film Institute DVD *RW Paul: The Collected Films (1895–1908)* (2006).
- 4 I. M. Pacatus [Maxim Gorky], *Nizhegorodski listok*, July 4, 1896; reprinted as “A Review of the Lumière Program at the Nizhni-Novgorod Fair,” in Jay Leyda, *Kino: A History of the Russian and Soviet Film* (New York: Collier, 1973), 407–9.
- 5 Response to the “invention” of “living pictures” varied widely in different countries. For Russia, see Yuri Tsivian, *Early Cinema in Russia and its Cultural Reception* (New York: Routledge, 1994). For Europe generally, see Martin Loiperdinger, ed., *Travelling Cinema in Europe* (Frankfurt: Stroemfeld, 2008).
- 6 See, for instance, Marta Braun, *Picturing Time: The Work of Étienne-Jules Marey (1830–1904)* (Chicago: Chicago University Press, 1992); Michel Frizot, *Étienne-Jules Marey Chronophotographe* (Paris: Nathan, 2001); Laurent Mannoni, *Great Art of Light and Shadow: Archaeology of the Cinema* (Exeter: University of Exeter Press, 2001); and Mary Ann Doane, *The Emergence of Cinematic Time* (Cambridge, MA: Harvard University Press, 2002).
- 7 Louis de Meurville, *Le Gaulois*, February 12, 1896; quoted in Martina Müller's television feature *Cinématographe Lumière* (Westdeutsche Rundfunk-WDR, 1995).
- 8 Besides the Siegen research project, the period from roughly 1870 to 1910 (and its contemporary relevance) also informs the agenda of several other university based research projects: one in Lausanne (headed by François Albera and Maria Tortajada), one in Montreal (headed by André Gaudreault), and one in Amsterdam (coordinated by Michael Wedel, Wanda Strauven, and myself). It is close to the work done at Birkbeck College (the “London Screen Study Project” initiated by Ian Christie) and it informs much of the research in the University of Chicago's Cinema and Media Studies program (especially the work of Tom Gunning, Yuri Tsivian, James Lastra, and the late Miriam Hansen). Web resources also support such research, such as “Who's Who of Victorian Cinema” (<http://www.victorian-cinema.net/>), the “Early Visual Media” website (<http://users.telenet.be/thomasweynants/history.html>), and the “Dead Media Project” (<http://www.deadmedia.org/>). Similar projects are being pursued at

- the Universities of Utrecht, Trier, Bologna, Udine, and Weimar, not to mention the large number of scholars represented in Domitor, the “International Association Dedicated to the Study of Early Cinema.”
- 9 David Bordwell has challenged the notion that cinema changed perceptual habits, attacking the “history of vision” approach to cinema. See David Bordwell, *On the History of Film Style* (Cambridge, MA: Harvard University Press, 1997), 141–3.
 - 10 Such a need to take stock is shared by many scholars. Sean Cubitt's *The Cinema Effect* (Cambridge, MA: MIT Press, 2005), Francesco Casetti's *Eye of the Century: Film, Experience, Modernity* (New York: Columbia University Press, 2008), and David Rodowick's *The Virtual Life of Film* (Cambridge, MA: Harvard University Press, 2007) have all tried to elaborate a coherent historical as well as conceptual framework within which to position the cinema at the threshold of its second century.
 - 11 See Joanne L. Yeck, *Our Film Heritage* (New Brunswick: Rutgers University Press, 1997). Some of the reasons why this heritage is still endangered are given in Paolo Cherchi Usai's *The Death of Cinema* (London: British Film Institute, 2001). More melancholy accounts of what has already been lost can be found in Kevin Brownlow, *The Parade's Gone By ...* (London: Abacus, 1969); and Stephen Barber, *Abandoned Images: Film and Film's End* (London: Reaktion Books, 2010).
 - 12 See Jacques Derrida, *Archive Fever: A Freudian Impression* (Baltimore: Johns Hopkins University Press, 1995); and Wolfgang Ernst, *Das Rumoren der Archive* (Berlin: Merve, 2002). For an overview, see Marlene Manoff, “Theories of the Archive from across the Disciplines,” in *Libraries and the Academy* 4, no. 1 (January 2004): 9–25.
 - 13 Such as the very successful biennial “Orphans of the Cinema” symposium, initiated and directed by Dan Streible at New York University.
 - 14 More and more studies are inquiring into how individual images have come to shape our understanding of history. On the Farm Security Administration photos, see James Curtis, *Mind's Eye, Mind's Truth: FSA Photography Reconsidered* (Philadelphia: Temple University Press, 1989); and Robert Hariman and John Louis Lucaites, *No Caption Needed* (Chicago: University of Chicago Press, 2007). On the famous 1943 photo of the Warsaw ghetto boy, see Frédéric Rousseau, *L'enfant juif de Varsovie. Histoire d'une photographie* (Paris: Seuil, 2009); and Richard Raskin, *A Child At Gunpoint* (Aarhus: Aarhus University Press, 2004).
 - 15 These, however, are verdicts themselves in need of revision. Rereading the seminal studies of Paul Rotha, Richard Griffith, and Lewis Jacobs, as well as the magisterial histories of Jacques Delandès (for France) and Friedrich von Zglinicki (for Germany), one is impressed by how many details – and some of their judgments – have stood the test of time.
 - 16 See, for example, Rick Altman's *Silent Film Sound* (New York: Columbia University Press, 2007); James Lastra's *Sound Technologies and the American Cinema: Perception, Representation, Modernity* (New York: Columbia University Press, 2000); and Michael Wedel, *Der deutsche Musikfilm: Archäologie eines Genres 1914–1945* (Munich: text + kritik, 2007).
 - 17 See André Gaudreault and Philippe Marion, “Transécriture and Narrative Mediativity: The Stakes of Intermediality,” in *A Companion to Literature and Film*, eds. Robert Stam and Alessandra Raengo (Oxford: Blackwell, 2004), 58–70; Homi Bhabha, *The Location of Culture* (London: Routledge, 1994); and Jay D. Bolter and Richard Grusin, *Remediation* (Cambridge, MA: MIT Press, 2000).

- 18 See Tom Gunning, "Weaving a Narrative"; Charles Musser, "The Travel Genre: Moving Towards Fictional Narrative"; and André Gaudreault, "Detours in Film Narrative," all in *Early Cinema: Space Frame Narrative*, ed. Thomas Elsaesser (London: British Film Institute, 1990).
- 19 For the history of the term "cinema of attractions," see Wanda Strauven, ed., *The Cinema of Attractions Reloaded* (Amsterdam: Amsterdam University Press, 2007).
- 20 Robert C. Allen and Douglas Gomery, *Film History: Theory and Practice* (New York: McGraw Hill, 1993), 4.
- 21 One recalls the hostility of Hugo Münsterberg or Rudolf Arnheim to sound film, which retrospectively made the preceding decade "silent" or "mute" again in order to champion the cinema of the 1920s as "art." For an account of the resistance to sound, see Sarah Kozloff, *Invisible Storytellers* (Berkeley: University of California Press, 1988), 8–11.
- 22 André Bazin, "The Myth of Total Cinema," in *What is Cinema?*, vol. 1, trans. Hugh Gray (Berkeley: University of California Press, 1967), 23–7.
- 23 Among a number of figures, Albert Robida (1848–1926) stands out with his three dystopian-satirical books about the twentieth century: *Le vingtième siècle* (1883), *La guerre au vingtième siècle* (1887), and *Le vingtième siècle: la vie électrique* (1890). The most comprehensive account of cartoons on early cinema is to be found in Stephen Bottomore, *I Want to See This Annie Mattygraph: A Cartoon History of the Coming of the Movies* (Pordenone: Le Giornate del Cinema Muto, 1995).
- 24 See Richard Abel, *who has documented how French films were gradually driven out of the North American market in The Red Rooster Scare: Making Cinema American 1900–1910* (Berkeley: University of California Press, 1999).
- 25 Thomas Elsaesser, "Early Film History and Multi-Media: An Archaeology of Possible Futures?," in *New Media, Old Media: A History and Theory Reader*, eds. Wendy Hui Kyong Chun and Thomas Keenan (New York: Routledge, 2006), 13–26.
- 26 On the question of multiple discoveries in science see Robert K. Merton and Elinor Barber, *The Travels and Adventures of Serendipity* (Princeton: Princeton University Press, 2006); and Susan Cozzens, *Social Control and Multiple Discovery in Science: The Opiate Receptor Case* (Buffalo: State University of New York Press, 1990). On "evolutionary epistemology" see Ahron Kantorovich, *Scientific Discovery: Logic and Tinkering* (Albany: State University of New York Press, 1993); and Malcolm Gladwell, "In the Air," *New Yorker*, May 12, 2008, http://www.newyorker.com/reporting/2008/05/12/080512fa_fact_gladwell.
- 27 The consensus is that one cannot talk of a "birth" of cinema, even if there is still an "official birthday" (December 28, 1895) which designates the Lumière brothers as the "parents." Thanks to the work of Laurent Mannoni, Charles Musser, Deac Rossell, Martin Loiperdinger, and others it is now accepted that the cinema has too many "begetters," "abortions," and "siblings" for its origins and identity to add up to a single (linear) history.
- 28 For warfare and surveillance, see Paul Virilio, *War and Cinema: The Logistics of Perception* (London: Verso, 1989); Friedrich Kittler, *Draculas Vermächtnis* (Leipzig: Reclam, 1993); and virtually the entire film asnd installation output of Harun Farocki of the past twenty years.

- 29 See the studies by Karen L. Ishizuka and Patricia Zimmerman, eds., *Mining the Home Movie* (Berkeley: University of California Press, 2008); Lisa Cartwright, *Screening the Body: Tracing Medicine's Visual Culture* (Minneapolis: University of Minnesota Press, 1995); William C. Wees, *Recycled Images: The Art and Politics of Found Footage Films* (New York: Anthology Film Archives, 1993); Christa Blümlinger, *Filme aus zweiter Hand* (Berlin: Vorwerk8, 2009); and Vinzenz Hediger and Patrick Vonderau, *Films that Work* (Amsterdam: Amsterdam University Press, 2009).
- 30 Since Edison had failed to patent his Kinetoscope in Britain, Paul built his own version, "improving" it in the process. One of these machines found its way to Lyon, where the Lumières undertook some more "reverse-engineering" and modification. Thus, "multiple discoveries" and patent registration are at issue as well. See Robert Pearson, "Early Cinema," in *The Oxford History of World Cinema*, ed. Geoffrey Nowell-Smith (Oxford: Oxford University Press, 1996), 13–23.
- 31 See Marina Warner, *Phantasmagoria: Spirit Visions, Metaphors, and Media into the Twenty-first Century* (New York: Oxford University Press, 2006).
- 32 See Terry Castle's *The Female Thermometer* (New York: Oxford University Press, 1996) and Jonathan Crary's *Techniques of the Observer* (Cambridge, MA: MIT Press, 1992).
- 33 For a first historical assessment of this phase, see Loiperdinger, *Travelling Cinema*.
- 34 See, for instance, Teresa Rizzo, "YouTube – the New Cinema of Attractions," *Scan – Journal of Media Arts Culture* 5, no. 1 (2008), http://scan.net.au/scan/journal/display.php?journal_id=109; and Landon A. Palmer, "Movement 1.1: The Futures of Cinema," *Movement Journal* 1, no. 1 (n.d.), http://www.movementjournal.com/issue_1.1_futures_of_cinema/01_introduction.html.
- 35 The phrase is from Bazin, "The Myth," 21.
- 36 For a collection of some of Burch's seminal pieces, see Noël Burch, *Life to those Shadows* (Berkeley: University of California Press, 1990).
- 37 Allen and Gomery, *Film History*, 38–42.
- 38 Robert C. Allen, *Horrible Prettiness: Burlesque and American Culture* (Chapel Hill: University of North Carolina Press, 1992); Charles Musser, *The Emergence of Cinema: The American Screen to 1907* (Berkeley: University of California Press, 1990); Richard Maltby, Melvyn Stokes, and Robert C. Allen, eds., *Going to the Movies: Hollywood and the Social Experience of Cinema* (Exeter: University of Exeter Press, 2007); and Charles Musser, *Before the Nickelodeon: Edwin S. Porter and the Edison Manufacturing Company* (Berkeley: University of California Press, 1991).
- 39 Elsaesser, *Early Cinema*.
- 40 See Charles Musser, "Rethinking Early Cinema: Cinema of Attractions and Narrativity," *Yale Journal of Criticism* 7, no. 2 (1994): 203–32; and "A Cinema of Contemplation, A Cinema of Discernment: Spectatorship, Intertextuality and Attractions in the 1890s," in Strauven, *Cinema of Attractions*, 159–80.
- 41 Dudley Andrew, *What Cinema Is!* (Oxford: Wiley-Blackwell, 2010), xiii.
- 42 For an important reassessment of the concept of the *dispositif*, see Albera and Tortajada, *Cinema beyond Film*.
- 43 T. W. Adorno, *Drei Studien zu Hegel* (Frankfurt: Suhrkamp, 1963), 1.