

# CONVERSATIONS ON CINEMA AND MEDIA ARCHAEOLOGY

By Thomas Elsaesser and Siegfried Zielinski

*In memoriam Thomas Elsaesser (1943–2019)*

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# Obituary

**Siegfried Zielinski,  
November 10, 2020, Berlin**

Thomas Elsaesser was born in 1943 in Charlottenburg, that part of Berlin from which I am now writing these sentences. It has been an infinite period of eleven COVID months since we last saw each other and were able to talk to each other. The famous Peking University had invited us and honoured us with their first symposium on "Archaeology of Media: Art, Media and Perception" (December 2–3, 2019). The first day of the event was dedicated to our contributions to the field. Each of us gave a lecture in which we were able to present our concept of media archaeological thinking in detail. Afterwards, we were invited to join the podium for dialogue. The hall, located right behind the assembly hall of the university, was packed with about 200 doctoral students and colleagues from various disciplines and was decorated entirely in red and gold. There is room for 5,000 heads.

After the mild and humid Shanghai, where on its West Bund nothing less than the future had been discussed a few days earlier, Beijing felt crispy cold. There was even some snow on the venerable university campus which has the dimensions of a small German town. There are still individual houses on the campus in the traditional Chinese ar-

chitectural style. The sun was shining, the air was clear, the colours glowed. Thomas had flown through the night and arrived in the morning. A bit tired, with dark edges under his eyes, but as always smiling friendly, in good spirits, full of zest for action. On the plane he had been still working on his lectures, he said, which he wanted to give in Beijing and then in Shanghai. But he was doing well, he said.

Thomas Elsaesser was in China for the first time. Already at noon, between our lectures, he got to know the generous hospitality of our Chinese hosts. We were invited to an extremely sumptuous lunch and were able to meet Professor Hongfeng Tang, our main host from the School of Arts, some of her colleagues and some passionate cineastes and curators at the usual large round table. We were immediately concerned with the topics that were on our minds: film, cinema, the changes that have taken place in recent decades, the opening of cinematic thinking to a larger context of thinking the whole field of media and its interrelations. Thomas was visibly astonished at how intensively his work on the history of film and cinema was studied in China and how well acquainted one was with the paradigm shift towards archaeology of media in which he had played a major role. And he was very pleased that many of his texts were in the process of being translated or were about to be translated – including some translations he was now hearing about for the first time.

The wonderful meal was repeated in the evening in one of the faculty restaurants of Peking University with a slightly different group of people. Once again, we were able to experience and enjoy that dining together in China can be something like an anticipation of the utopia of a society in which individuals are connected with each other – at least for a few hours – in affection and open curiosity. This is the most beautiful side of the *unconditional we* that characterises China's collective subjectivity. Thomas was happy. He even drank one of the light Chinese beers for dinner. In conversation, we extended the afternoon of the symposium, praised the various dishes and their deliciousness and finally discussed the following day before advising the guest of honour to rest and go to sleep soon.

The next day was special for Thomas. In the evening he was supposed to present and discuss his film "Die Sonneninsel." This work had become very important for Thomas in the last years. In 2017 he had completed the documentary film in memory of his family, their origins and their far-reaching relationships, among others with the landscape architect Leberecht Migge, thus also creating a cinematic monument to his father. When we met for breakfast in the morning, he immediately told me about the Super 8 films his father had made during almost 20 years and which are now an essential part of the found-footage material from which he had assembled the film. He was obviously very much looking forward to the special

evening of showing and discussing this work in the heart of academic Beijing.

Back at the symposium, Thomas and I were able to listen to the young colleagues from the most diverse disciplines at Peking University and neighbouring faculties, each of whom was seeking their own approach to media archaeology. The level of knowledge about the field was enormous and astounded us. Thomas was able to work well on several levels at the same time and immediately started his electronic mail to organize the next lectures. At the same time, he was wide awake, alert and responded actively to the contributions of our hosts in the discussion.

After a few hours I had to say goodbye to the airport to fly back from Beijing to Frankfurt in the afternoon. Thomas and I embraced each other, I wished him all the best for the next days in Beijing and Shanghai and said that he should take care of himself and not overdo it. He smiled as always with his so sovereign cordiality. When I opened my digital letterbox very early the next morning in Berlin, the shock was incredibly big. Hongfeng Tang asked me in an e-mail that was already a few hours old whether I had contact with Thomas' partner. He had been found collapsed in his room the morning after the screening. A short time later the news came that he could not be reanimated anymore; "Thomas has passed away". It is still incomprehensible.

I am extremely grateful to the editors of *Interface Critique* for printing the last public conversation I had with Thomas Elsaesser.<sup>1</sup> Six years before the meeting in Beijing, we had met for another public dialogue, back then at the Berlin University of the Arts. It was part of a series in which we tried to find out how the media thinking of some German-speaking protagonists from different domains and disciplines had developed.<sup>2</sup> My introduction to the dialogue briefly summarises the working biography of this passionate cineaste and media thinker. But above all, it pays tribute to a great teacher and friend.

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1 **Editorial note:** The panel was moderated by Hongfeng Tang. The audience questions delivered in Chinese were simultaneously translated and are not included in this transcription. Thomas Elsaesser and Siegfried Zielinski presented images during their talks which are, however, not published here. We are indebted to Siegfried Zielinski for the wonderful idea to transcribe and publish in our journal this last talk of Thomas Elsaesser as well as for writing its very personal introduction, to Hongfeng Tang for her generous support providing the audio recording and to Mari Matsutoya for taking care of the transcription and editing of the audio recording.

2 The talk has been transcribed and published in *Zur Genealogie des MedienDenkens*, ed. Daniel Irrgang and Florian Hadler (Berlin 2017); for the excerpt translated and published here see pp. 169–171.

# Introduction

**Siegfried Zielinski introducing  
Thomas Elsaesser,  
November 21, 2012, Berlin**

Thomas Elsaesser is a particular figure in the field of humanities of the past half century. As a modern thinker, he is completely in time and appears, at the same time, to be out of time. Possibly, in view of a truly qualified and engaging contemporaneity, as called for by Nietzsche. It requires a sensitivity for luxury to be able to be in the world in an untimely manner. Beyond any doubt, Thomas Elsaesser is a cinema-mad, cosmopolitan, elegant intellectual, of whom there are few with such charisma. Walter Benjamin could well have described him in the *Passagenwerk* if he had been at the Bibliothèque Nationale at a time when he could have met him, yet thirty years lay between their stays at the archival centre of European modernity in Paris.

Thomas Elsaesser is as much at home in Amsterdam as he is in ice-cold Turku or Stockholm, where he holds the Ingmar Bergman Professorship; in New York, in Paris or in London, in short: wherever there is exciting cinema culture, good filmmakers and interesting approaches to an intellectual engagement with film and other medial attractions. Thomas Elsaesser – you may be surprised to hear this from me, but I dare say – is an extremely friendly person. I have never experienced him as disgruntled or even aggressive, although there are many occasions for it

in the institutions that have surrounded him for such a long time, and which so often torment us. His work as a film scholar, writer and traveling salesman in matters of advanced film culture is, for him, obviously a source of great pleasure. One can sense that he deems it a privilege to be able to do precisely this work, and he responds to this privilege by doing his work particularly well. This attitude is passed on to his students and doctoral candidates. The greatest gift. When Silvia Wagnermaier, the former research supervisor of the Vilém Flusser Archive, studied with him in Amsterdam, she wrote me in excitement one day that Thomas Elsaesser occasionally served coffee and biscuits in his study centre in Amsterdam to give the master's and doctoral students food for thought and to boost their well-being. For many of you this may sound old-fashioned, but not for me: Thomas Elsaesser is kind in a direct sense of this great word. Many in the field of media thinkers owe him a lot, including myself.

Born in Berlin into the last two years of the war, he went to grammar school in Mannheim, started briefly to study literature in Heidelberg, and then crossed the Channel to England as early as 1963. In the early provincial post-war years this was a big leap, comparable perhaps to the decision of a young person today to study in Shanghai or Mexico City. At the University of Sussex, he studied literature in the roaring sixties, continued to go to the cinema obsessively and wrote his first texts on film.

As a cinephile and a great admirer of the Nouvelle Vague, especially of Godard's

films, he then moved to Paris, the secret capital of all cinema enthusiasts – at least in the 1960s and 1970s – for just under a year. It is only when you have shared the experience of watching, say, “India Song” by Marguerite Duras for a few hours, during an afternoon screening in a sunny July with two or three other crazy people in a cinema in Saint-Germain can you start to understand the special bodily thinking this place evokes in relation to cinema.

Back in England, Thomas Elsaesser founded the magazine *Brighton Film Review* in 1968, later sponsored by the British Film Institute, which then from 1971 appeared as *Monogram*<sup>3</sup> – also in homage to Godard. With this magazine, he essentially cemented his reputation as an excellent connoisseur and critic of classic Hollywood films. In the same year he received his doctorate in comparative literature at the University of Sussex with a thesis on the historians of the French Revolution Jules Michelet and Thomas Carlyle. In the 1970s, together with some cinephile friends, Thomas Elsaesser ensured that the most exciting art of the 20th century would finally be taken seriously in academic educational institutions. In 1976, together with Charles Barr at the University of East Anglia, he founded one of the first independent institutes for film studies in the United Kingdom – I would say in Europe, there were actually not so many of them at the time. With like-minded experimental filmmakers and theorists like Peter Wollen, Ben Brewster, Robin Wood or

Edward Buscombe from the British Film Institute, the construction work of an academic culture around film theory that is taken seriously by the humanities began. In my view, the new British cinema of the 1980s can hardly be imagined without this intellectual culture – the cinema of Derek Jarman, for example, of Stephen Frears, of Peter Greenaway and others.

1991 was the year he leapt back across the Channel, but not into the “repellently reunited Germany”<sup>4</sup>, as Flusser wrote from Holland, but to Amsterdam. What Elsaesser mastered there fits on the shoulders of several giants. Within a few years, he had turned the Department for Film and Television Studies into one of the most highly regarded institutes in the world. Above all, it was a place for research in film studies with porous borders to media studies which was now emerging elsewhere. Together with Mieke Bahl and others, he founded the Amsterdam School for Cultural Analysis, ASCA for short, which has become one of the most important research institutes in our field worldwide.

From 2000 to 2006 he was head of the doctoral programme “Cinema Europe” and ever since I met him, he has been travelling halfway around the world with fellowships, guest- and honorary professorships. Among other things, he is currently a research fellow at the Bauhaus University in Weimar, which, together with Halle, Leipzig and Jena, is more and more becoming

3 *Brighton Film Review*, magazine by the Film Society at the University of Sussex, later *Monogram*, 1968 to the end of the 1970's.

4 Vilém Flusser in a letter to his cousin David Flusser dated November 25, 1990. Correspondence in the Vilém Flusser Archive, Letter No. 56; printed in Siegfried Zielinski, *Entwerfen und Entbergen. Aspekte einer Genealogie der Projektion*. International Flusser Lectures (Cologne 2010), p. 4.

the academic elite of the Republic, as it once was. His books include studies on the positioning and self-affirmation of European cinema under the hegemony of Hollywood. With titles like *European Cinema. Face to Face with Hollywood*<sup>5</sup>, on the passion for cinema: *Cinephilia. Movies, Love and Memory*<sup>6</sup>, on the European avant-garde: *Moving Forward, Looking Back*<sup>7</sup> – as well as books on Fassbinder, Farocki, Fritz Lang or *Filmgeschichte und frühes Kino. Archäologie eines Medienwandels*.<sup>8</sup>

For a start, compare the two cover pages. They belong to books on Thomas Elsaesser. One from 2004 and the other five years later. We won't mention the occasions, but you can probably guess what they were. The cover images are very different. To the left: *Die Spur durch den Spiegel. Der Film in der Kultur der Moderne*.<sup>9</sup> On the right, the book *Mind the Screen*, published five years later with the seductive subtitle, *Media Concepts According to Thomas Elsaesser*<sup>10</sup> – “film” is no longer mentioned here.

Thank you again for coming, dear Thomas ...

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5 Thomas Elsaesser, *European Cinema. Face to Face with Hollywood* (Amsterdam 2005).

6 Marijke de Valck and Malte Hagener, *Cinephilia. Movies, Love and Memory* (Amsterdam 2005).

7 Malte Hagener, *Moving Forward, Looking Back. The European Avant-Garde and the invention of film culture 1919–1939* (Amsterdam 2007).

8 Thomas Elsaesser and Michael Wedel, *Filmgeschichte und frühes Kino. Archäologie eines Medienwandels* (Munich 2002).

9 Malte Hagener, Johann N. Schmidt and Michael Wedel, *Die Spur durch den Spiegel. Der Film in der Kultur der Moderne* (Berlin 2004).

10 Jaap Kooijman, Patricia Pisters and Wanda Strauven, *Mind the Screen. Media Concepts According to Thomas Elsaesser* (Amsterdam 2008).

# Conversation

**Thomas Elsaesser and Siegfried Zielinski,  
December 2, 2019, Beijing**

**TE:** The genealogies and prehistories that have made the invention of cinema possible have focused on four aspects. First, the ancient art of projection, especially the camera obscura. And as you know, this is the principle of a camera obscura, a little hole in the wall, and if the light falls in the right way, you will have an upside-down replication of an image. Second, the history of photography, the light sensitive substances such as here, the very first photograph ever taken by Niépce. And here I dug out a photograph of the boulevard in Temple from 1838. So very early on. Then we have as necessary conditions of cinema, the developments in optics, telescope, lenses, magnifying glasses. And finally, the peculiarities of human perception. When visualizing motion, what used to be called persistence of vision, in other words, if there is a sufficient acceleration to an image with a slit, this is a phénakisticope, then we imagine motion. So that's what is called the persistence of vision.

Historians of the cinematic apparatus – this is something that you're probably familiar with, the so-called apparatus theory from the 1970s – Jean-Louis Baudry and Christian Metz added another aspect as necessary for our understanding of cinema; namely, the monoc-

ular representation in perspective, which we inherited from Western art since the 15th and 16th century. And according to this particular theory – apparatus theory – cinema has adopted the famous open window of Leon Battista Alberti by constraining the projected image inside a framed reticle. This is the traditional way in which we've been thinking about cinema. Now it's obvious with the emergence of digitization and digital cinema, that such a reliance on photography, or indeed on projection as a founding genealogy of cinema, is not only problematic but basically impossible to reconstruct.

I became interested in an archaeology of cinema because I wanted to discover other narratives of the origins of the moving image that are not necessarily reliant on photography. Indeed, I got interested in it through a study of early cinema, which is another story. So, as Siegfried was saying earlier, this well predates digitization. Nonetheless, I was interested in other narratives of the origins of the moving image, not necessarily reliant on photography. So in my book, *Film History as Media Archaeology*<sup>11</sup> – which I assume is one of the reasons I'm here today – I tried to rethink the story of the origins of cinema, especially the idea that cinema as we know or imagine it, namely that it tends towards greater and greater realism, and that it is primarily a storytelling medium; that this story is usually thought to be inevitable, that it must tend towards narrative and

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11 Thomas Elsaesser, *Film History as Media Archaeology: Tracking Digital Cinema* (Amsterdam 2016).



Photo: Kaiyuan LU

it tends towards realism. And my study of early cinema convinced me that this was a false teleology. That was not how the cinema came about.

So there is a narrative of inevitability – and in this narrative they're all *men* who have helped over the centuries to bring cinema about. Here I give you a brief list of them.

There's Joseph Plateau and his *phénakistiscope*. There is Edward Muybridge with his *chrono-photography*. There is Étienne-Jules Marey with his *station physiologique*, with his studies of motion and flow. There is the *fusil photographique*, inspired by Jules Janssen. They are all Frenchmen or Belgians. And then of course, in America you have Thomas Edison with the Edison kinetoscope. But you also have a German, Ottomar Anschütz with the electric quick viewer, the *Schnellseher*. You also have Georges Demeny, who was a very inter-

esting person because of motion studies. Or you have William K. L. Dickson, who basically did the work that Edison is credited for, until one finally comes to the Lumiere brothers and their cinematograph setup for projection. So this story would assume that all these people, whether they knew it or not, had wittingly or unwittingly been the messengers, the mediators or the tools meant to further this inescapable invention of cinema by the Lumiere brothers.

This cannot be the case, when one studies what these people actually thought they were doing, when you look at the diversity of their inventions and their different apparatuses. And also, when one studies the practical goals that they were pursuing, in other words, all these different histories, and intentionalities and technologies were kind of brought together as if they were simply relay stations on the way to the cinema.

So that was the problem that I felt a long time ago bedevilled the traditional histories of cinema. And you could argue that the main purpose of media of my notion of film history as media archaeology is primarily to do away with the notion of predecessors. And the notion of this inevitable linearity of the history of cinema with another couple of other false teleologies. Usually we say, from chrono-photography to cinematography, or we say, from silent to sound; but if you think of Edison, it was actually the other way around. Edison invented or perfected the phonograph before the kinematograph. And here you see him listening to the phonograph. Now, he looks like somebody who had earphones on his mobile phone. A little bit bigger but there you go. Another false teleology is that we think that the cinema developed from black and white to colour, but we now have ample evidence that early cinema was actually in colour. So that too was a wrong teleology. Or that first you had 2D and then you had 3D, but that means completely forgetting that the 19th century had a very developed stereoscopic technology and also 3D cameras.

Now, the term media archaeology, as you probably already heard this morning, denotes very different things to different practitioners.

Here, for instance, these are three books that remotely but indirectly relate to these changes. I'm promoting a little bit, not so much my own book, but my own series of books that I edited for Amsterdam University Press, and I'm very honoured and proud that Siegfried Ziel-

inski is also one of my authors. So what are these different definitions or explanations for media archaeology.

For instance, Erkki Huhtamo and Jussi Parikka, in their book, *Media Archaeology: Approaches, Applications and Implications*<sup>12</sup> say that media archaeology comes from a discontent with canonized narratives of media culture and media history. And they say that discontent is the clearest common driving tool.

Our friend Siegfried Zielinski in his original book, *Audiovisions*,<sup>13</sup> now thirty years ago, who is indeed one of the first to define media archaeology as an activity, *eine Tätigkeit*, which, and I quote, "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." One goes back to the past in order to find a new path to the future.

There is another book by Wolfgang Ernst, who doesn't use the word media archaeology here, but clearly is also very much involved in this recovery activity.

There's Geert Lovink, a Dutch scholar who says that media archaeology is a hermeneutic reading of the new against the grain of the past, rather than the telling of the histories of technologies from past to present. Again, we're all against linearity and against teleologies. For

12 Erkki Huhtamo and Jussi Parikka (eds.), *Media Archaeology: Approaches, Applications and Implications* (Berkeley et al. 2011).

13 Siegfried Zielinski, *Audiovisions: Cinema and Television as Entr'actes in History* (Amsterdam 1999); German edition: *Audiovisionen. Kino und Fernsehen als Zwischenspiele in der Geschichte* (Reinbek/Hamburg 1989).

Laurie Emerson who comes from digital media, media archaeology provides a sobering conceptual friction to the current culture of the new that dominates contemporary thinking.

Well, you see, Parikka argues that, I quote, “media archaeology sees media cultures as sedimented and layered” – that is where the archaeological metaphor comes from a sedimentary layer of fold of time – “and materiality, where the past might be suddenly discovered anew.” So we have these different definitions, this notion of layered-ness and sedimentation, but we also have this sense of going back in the past, to discover something that might be useful for the future.

Now, as for myself, I’m less concerned with answering what media archaeology is, and I’m more interested in what I call the symptomatic nature. That’s why I call it the media archaeology of symptom, in the sense that I asked “why media archaeology now?”, why are we now interested in media archaeology. So I’m inclined to treat media archaeology as a symptom rather than a method, as a placeholder rather than as a research program, as a response to various kinds of crises, rather than a breakthrough innovative discipline. And finally, I worry whether media archaeology is itself an ideology, that is, an ideology of the digital, rather than a way of generating or securing new kinds of knowledge. I suppose this would be the most controversial that I see. There is a particular question that we have to ask ourselves: Why media archaeology now?

But before I go into some of my doubts

about it, let me just enumerate or show some of the positive features we have gained by having media archaeology now as an integral part of film history. Media archaeology can highlight a number of tensions and contradictions that are embedded in the cinema as we know it. A shift in attention can resituate or even resolve some of these tensions now within an enlarged context, adding an extended timeframe, and we owe the extended timeframe very much to Siegfried Zielinski’s research. One such inherent tension, for instance, is the very setup of the cinematic apparatus in the movie theatre.

Imagine the movie theatre: It stems from the fact that the light emanating from the movie projector extends and scatters over a wide area. It’s scattered over a wide area and it fills a given space in varying degrees of density and intensity. However, in order to achieve an image, this scattered light has to be reabsorbed by a black surround and a rectangular frame. So there you go, you have the scattering, and then you have the bringing it back together again. That’s one of the tensions that I think are very significant. And of course, it’s something that we are much more aware of now that we have images in very different spaces, but I’ll come back to that.

Because with screens today often so large that the image actually or potentially exceeds the human field of vision, this constraint inherent in the traditional cinema screen loses its normative status and becomes much more noticeable as a historical convention, intended precise-

ly to hide this contradiction between the scattering and the constraining within a rectangle. Furthermore, such unbounded or unframed images, projected thanks to the technology first developed by anti-aircraft search lights, opens up the possibility of retro-actively returning to a long standing and long forgotten practice amongst the art of projection that appears to have become obsolete with the arrival of cinema. Namely, the practice of phantasmagoria. This was first introduced in the late 18th century after the French Revolution and persisted throughout the 19th century with such masters as Paul Philidor and Etienne-Gaspard Robertson. You saw these projections not on a rectangular screen, but scattering and filling the space.

This practice, more complicatedly called "Pepper's Ghost", of bringing ghosts onto the theatrical stage, was once prevalent and popular also amongst writers such as Horace Walpole. In other words, an image like this one here, in *The Castle of Otranto* (1764), is unthinkable without phantasmagoria as a practice that everybody was familiar with, or the German writer Friedrich Schiller, when he wrote *Der Geisterseher*.<sup>14</sup> So, you see, we can actually reconstruct the presence of phantasmagoria through the romantic literature of the 1820s and 1830s. But even more interesting perhaps is that phantasmagoria was very significant for the philosopher Georg Wilhelm Friedrich Hegel: "This is the night, the inner of na-

ture that exists here – pure self. In phantasmagorical presentations it is night on all sides; here a bloody head suddenly surges forward, there another white form abruptly appears before vanishing again. One catches sight of this night when looking into the eye of man – into a night that turns dreadful, it is the night of the world that presents itself here."<sup>15</sup> So Hegel was speculating on the part that is not accessible to rationality and human beings by explicitly referencing phantasmagoria. Or we have here, the early photography that loved to use the stereoscopic slide and superposition, so we can reconstruct the presence of phantasmagoria through other media that reflect that presence indirectly.

We have known all this, but somehow we had assumed that it had become obsolete with the emergence of cinema. However, if we think of it now, we can look at what's happening to images. Especially in the area of fine arts and installations, we see the return of phantasmagoric spectacles, for instance. This is a return to images that fill a space rather than being constrained by a frame. Krzysztof Wodiczko, here in Venice: You probably recognize it, *Pozna? Projection* (2008), a projection onto the clock tower.

Or you have Doug Aitken (*sleepwalkers*, 2007), here projecting in New York on the walls of the Museum of Modern Art, or you have a very famous installation by Anthony McCall, *Line Describing a Cone* (1973).

14 Friedrich Schiller, *Der Geisterseher. Aus den Memoiren des Grafen von O\*\** (Leipzig 1789).

15 German source: G.W.F. Hegel, *Jenaer Realphilosophie*, in: *Frühe politische Systeme*, ed. Gerhard Göhler (Frankfurt/Main 1974), pp. 201–289, here 204; source of the translation quoted by Elsaesser unknown.

So in all these cases, the phantasmagoric notion of the image comes back. This is a clear example of how a current practice refers back to a past and where the study of the past gives us some clue to why seeing this return. This is why it's so interesting to speculate about why we are now talking about media archaeology so much. But I also want to bring up another aspect, another tension that is not unknown but often ignored. And this is, how cinema describes itself in the long history of making images mobile and portable, which takes us back to the Renaissance and the secularization of image making, and the establishment of a market for pictures in the way that other goods were manufactured on demand and then marketed as commodities. So the move is from fresco walls – here you have the Scrovegni Chapel in Padua frescos by Giotto di Bondone – to oil painting, and I don't want to make it too simplistic because it had far reaching consequences. But amongst other things, it proves that transitions and transformations are neither linear nor gradual. One simple point to make is that a mobile picture can indeed become a commodity, it can be bought and sold, it can be traded and transported, it can be owned and displayed in ways and in places quite different from a mural commissioned by a monastery, painted on or applied to a church. This process of mobility and portability affected both sides and subject matter. But it also determined the mode of representation and gave a very special meaning to indeed a monocular perspective, because it reinforced the spectator's single point of view,

it is anchoring the image.

So here we have the easel, the invention of the easel painting and we also have, on the right-hand side, miniatures. So it anchors, you see. You have to imagine that if you have a great mobility and variability in physical space, it helps to have within the image, a focal point, the singular point of view of monocular perspective. So just as there is a relationship between scattering and framing, I am arguing that there's a relationship between mobility and portability, and monocular perspective as the dominant mode of Western representation since the Renaissance.

Now, it's quite clear that for most of the 20th century it wasn't painting but photography that was the medium that most decisively intensified what you might call economic aspects of image making, and image trading. And it accelerated this mobility of images as well as the exchange between mechanical images and mass-produced objects and commodities. My favourite postcards are of a very famous scene from Jean-Luc Godard's *Les Carabiniers* (1963), where the two main characters go to war. And then their women say, what have you brought us back, and they bring back these postcards and say, "Look at all the buildings we now own." So it actually makes the point that I'm making now very explicitly in *Les Carabiniers*. And here, the image is André Malraux with his *Musée Imaginaire*,<sup>16</sup> his imaginary museum where

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16 Cf. particularly Malraux's first edition of the publication *Le Musée Imaginaire*, published in 1947 as first part of his *Psychologie*

all the art of the world was actually put on photographs. It also illustrates this notion of the exchange between objects and images.

So, I do have another question: Why did the moving image rely so heavily on photography, when electronic image making or an image transfer was already so close technologically, and so speculatively fantasized. And again, my inspiration here is Siegfried Zielinski, who has expressed some substantial doubts about a history of media that pays too much attention to cinema, and not enough attention to the prehistory of television, for instance.

The cinema as a photographic medium, but also as a projection medium was able to inherit and to exploit two traditions: that of wall paintings and murals because of the size, and that of miniatures and oil paintings. Here you have one of those miniatures with a close up. We have the intention to have the size, the scale if you like. But you also have the attention to detail of the close up that comes from miniature. And later the photograph.

So the cinema, my argument is, was not solely an extension of the novel, i.e. a narrative medium. But it was also the solution to what you might call a socio-economic problem when we think of it in terms of mobility, tradability and exchangeability. This would already be a parallel history of the cinema, or a genealogy of the cinema that has nothing to do with narrative. But it has to do with inherent contradictions

of image making, portability, transportability, scale, and so on.

Yet while getting the best of all possible image worlds, cinema also embedded another tension in its *dispositif*, so that the different parameters are fixed spectator and mobile image of the focus gaze, and the wondering eye had to be renegotiated and played off against each other. For instance, a video installation artist, like Bill Viola can, as it were, rediscover the religious drama of the triptych, or the altarpiece of a gothic cathedral, or indeed reinvent the Scrovegni Chapel in his *Going Forth by Day* (2002) for his films and installations. This is how it looked at the Guggenheim Museum in New York when I visited it.

By a paradox that perhaps only the media archaeologists can fully appreciate, contemporary art in galleries and museums is rediscovering the unique value of location and site specificity. In other words, it reduces mobility and portability, both in terms of scale but also by using the museum as its site-specific location. In the Renaissance artists sacrificed that particular located-ness and site-specificity in order to create a market for their images. And what we have is on the one hand, patrons, churches or museums – because the museums act as patrons – and site specificity versus, on the other hand, market and mobility. These are not, as it were, linear developments, but constituent transhistorical variables. You can have either mobility and markets or you can have patrons and site specificity. So the function of images can now be seen as varying between these different parameters.

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*de l'Art* (Gent 1947) and, revised, as first part of the three volume publication *Les Voix du Silence* (Paris 1951).

Now, I take this idea of the increased mobility and circulation argument from another Frenchman, Guy Debord and his *Society of the Spectacle*<sup>17</sup> where he argues this point, but there's also somebody else who might value this very much and who has done a similar job in relativizing and historicizing Renaissance perspective and that is John Berger in his book, *Ways of Seeing*.<sup>18</sup>

What this means for a genealogy of cinema is that the circulation and mobility of images in the form of framed pictures turns them into physical objects, while the material objects depicted become immaterial representations. A move, which in art history is often connected with Dutch still life painting.

These pictures here, of the 1660s to the 1690s, where food and precious objects are arranged and displayed in the way that shop windows were to exhibit luxury goods in the grand department stores on the boulevard of Paris or in New York's Park Avenue: There is now a connection between Dutch still life from the 17th century and 20th century shop window display. And indeed, there are many historians of American cinema who have shown a close connection between shop window display and the cinema and fashion. These are some of the cross-disciplinary threads that media archaeology can highlight. Across a 200year gap, cinema around 1900 took up this Dutch art of what we might call trends substantiation, remediating it from painting,

photography and the shop window to film, tableau and moving image.

Indeed, as I was saying, cinema is therefore not only a storytelling medium, but functions as a mediator that prepares and reshapes the physical world as image and picture, as image and spectacle, in a process that is only intensified and accelerated throughout the 20th century. And it led a political filmmaker, Harun Farocki, to concede that even his kind of critical documentary cinema was in fact contributing to what he called "making the world superfluous."<sup>19</sup>

Think of that. As images absorbed and consumed the real in the very act of pretending to represent the real... This is one of the things where the more the documentaries discover parts of the world, the more they devalue that which they represent. Again, another paradox that has to do with what moving images, what the cinema does to the world and in the world.

Now, in this narrative that I've just sketched, from fresco wall and mural to oil painting, from easel painting to the studio to the impressionists, the two things that you need to learn about impressionist painting is the mobile easel and paint in an aluminium tube. Only then could you take the easel outside and actually paint a fresco. And in that sense, you have to connect that particular mobility to indeed, the cinematograph, which is a mobile camera as opposed to

17 Guy Debord, *La société du Spectacle* (Paris 1967).

18 John Berger, *Ways of Seeing* (London 1972).

19 Cf. Thomas Elsaesser, Making The World Superfluous: An Interview With Harun Farocki, in: *Harun Farocki. Working the Sightlines*, ed. Thomas Elsaesser (Amsterdam 2004), pp. 177–190.

Edison's Black Maria, which was stationary. So, again, mobility is an important factor. And indeed, as we now know, the impressionists very often used photographs as the basis of their drawings and paintings. So, again, we have this intermingling of histories and technologies. Art history is kept separate, but also cinema history is kept separate, so we really need to bring these into communication with each other.

However, insofar as we persist in associating cinema with this Renaissance model of perception and argue that the single point of view reinforces both bourgeois individualism and a strict object-subject division, we have little choice but to declare the cinema to be based on an unresolved contradiction, which was predestined to make it obsolete with the digital. Now the reason often given for this obsolescence is that our contemporary media landscape – multiple screens both big and small, indoors and out in the open – and our contemporary media use – watching movies on our smartphones, using YouTube or Vimeo or Netflix – encourages us, indeed obliges us to adopt multiple points of view, multi-tasking, being flexible both in our object relations and in our subjectivities. However, the benefit of this is that we can now see how this double geometry of linear narrative and monocular perspective can now clearly be seen as an arbitrary constraint, rather than as a necessity and inevitability. This is because other modes of interacting with moving images have become so readily available and have found so little resistance in becoming

commonplace and habitual.

Now, if we are looking at alternative genealogies of audio-visual media, we must ask ourselves: What did the 19th century actually fantasize? And how did it imagine the technologies of the 20th century? And this is where I draw very much on Siegfried's work. Television, telegraphy, telephony, two-way sound and image communication and mobile devices – not cinema.

The fundamental fact is that the mid to late 19th century was not waiting for cinema. We actually have to explain why cinema was really hinted at before. You have people talking about the telegraph as the Victorian internet. You may say that is a kind of anachronism, but it actually points out this particular conjunction of a 19th century technology and its reinvention as it were, in our own time. Or we have, and this [picture] I actually take from Siegfried's book, the way that tele-transmission was imagined. And interestingly enough, the image that is being transmitted through wires is the Mona Lisa, in other words, *the* canonical art historical image.

But if you look at fantasies of the of the late 19th century, how it saw the 20th century would develop, you always have in the domestic sphere, a combination of the telephone and image projection.

In the year 2000, and here [an image], again, talking to somebody far away. And here, again, an image from Siegfried's book. The portability of – at that time it was the Walkman – the mobile phone hadn't yet been, or at least the iPhone had not been invented.

And this is the picture that we all love, which is from the 1870s and it looks exactly like Skype.

So that is what the 1870s were actually dreaming of, or imagining they had a very good idea of it. And all of this skips the cinema altogether. It goes straight from these telephone and telegraph based technologies to what we would now call the Internet, Skype and mobile communication.

But I want to open up another – avenue – if you like, where I refer myself more specifically to an alternative genealogy right within film studies as we know it, at least as I know it. And this is where I come back to André Bazin. For instance, in what might seem to be a counterintuitive and even counter-factual move, one can enlist André Bazin who is the father of film studies for many of us, and who is usually thought of as the champion of the ontology of the photographic image. His most famous article, “The Ontology of the Photographic Image”<sup>20</sup>, is also the basis of the cinema.

I think we can enlist Bazin also as an eminent media archaeologist of cinema, for whom photography was only one possible physical and ontological support. As recent scholarship on Bazin has shown there are many more Bazins and one of them has always proposed a plausible argument for cinema as part of a very long history of human preoccupation with death and mortality under the dual head-

ing of preservation and afterlife. Cinema for Bazin belongs to the same spiritual urge, fed by the same anxiety and dread out of which humans have wanted to preserve the dead by mummifying them. Or indeed by the Turin Shroud. He reminds his readers of the Turin Shroud and insists on the cinema’s role as being a trace and an index in the way that plaster cast and death masks preceded photography, and at the same time, were continued by photography. So he viewed photography, not as a representational medium, but as a preservational medium, which opens up the whole issue of memory and the peculiarity of the half dead and half alive status of photography. And indeed you might say that the cast uses the same positive and negative reversal in order to preserve the uncanny likeness of human beings after death, fixing their faces and expressions as if they were alive.

Defined in this way, cinema is both very ancient and very modern. And so as long as human beings fear death and wish for an afterlife that is both immanent and tangible, cinema or a form of cinema may well persist and survive.

If we consider Bazin’s film history as media archaeology, as indeed I do, it makes room for a genealogy that embeds the cinema in a history of opacity rather than transparency of material objects, like an envelope or a cast, rather than identifying it solely with a view to be contemplated, or indeed, the window on the world, which is how we usually see Bazin, the realist and phenomenologist.

For Bazin, these alternatives do not preclude each other but exist side by

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20 André Bazin, The Ontology of the Photographic Image. *Film Quarterly* 13/4 (1960), pp. 4–9; translation by Hugh Gray of the first chapter of vol. 1 of Bazin’s selected writings, *Qu’est-ce que le cinéma ? 1. Ontologie et Langage* (Paris 1958).

side. Similarly, I believe it should be possible to develop a media archaeological account from which analogue cinema and digital cinema can be seen as equally valid, but different ways of understanding both the material basis of cinema and its different manifestations over time. So these apparent returns that we see today, the return of what I call site-specificity, or the return of 3D in Hollywood films like *Avatar* (2009) and *Life of Pi* (2012), or the return of phantasmagoria as gallery installations, need not be plotted on a chronological timeline, and therefore need not be seen as returns at all. Instead, they are merely ever-present resources that filmmakers and artists are able to deploy as options and possibilities. Or indeed, they can be seen as solutions, solutions to problems which we may not yet even have properly formulated. I always liked this idea of thinking about developments as possible solutions to problems, as I said earlier.

Now I want to offer a particular way of getting into this. But I'm also aware that time is short so I'll try and make this as quick as I can. Because what I want to suggest is that there are two types of optics.

Another way of plotting an alternative genealogy is to start with the nature of light itself. It's propagation through space, it's absorption by physical bodies and its perception by an essential subject, i.e. a human being. And this other media archaeological trajectory would actually take us to a Dutchman, Christiaan Huygens, who lives from 1629 to 1695 and who was indeed the first one to sketch a

magic lantern. But he was also the one who had not only the particle theory of light, but also the wave theory of light in mind, at a time when Isaac Newton was defending the particle theory of light and geometrical optics. The Newtonian way would be the geometrical optics that we inherited with monocular perspectives and so on, but Huygens now stands for me for physiological optics.

So this would be the alternative. And I want to show very briefly why I think this physiological optics is important because it was taken up by somebody that some of you may know, namely by Jonathan Crary in *Techniques of the Observer*.<sup>21</sup> Crary gives us a media archaeological account of the 19th century. He is an art historian relying quite heavily on Michel Foucault as indeed I do as well, and what he has done is to document the diversity and heterogeneity of visual culture in the 19th century.

Crary not only compares scientists' accounts of perception with artist experiments with different ways of seeing. He also rediscovers pre-cinematic devices such as the phénakisticope or the handheld stereoscope. As popular pastimes were once found in almost every bourgeois home in France, Britain and Germany, for him it were these domestic toys that held the key to this alternative way of thinking about optics as non-geometrical.

So Crary's rehabilitation of physiological optics as having existed throughout

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21 Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA 1990).

the 19th century alongside geometrical optics constitute a first step also in understanding how and why in contemporary cinema, and indeed in contemporary studies, there is now a strong tendency to think of spectatorship once more in terms of embodied perception – that is, immersivity, interactivity, tactility and other ways of signalling haptic qualities of the image.

However, while most film theorists proposing such a turn towards embodiment and affect support their case either with a return to phenomenology – Merleau-Ponty – or by applying theories developing the cognitive sciences – for instance, Antonio Damasio is often quoted – my media archaeological argument would derive such a notion of embodiment both from the contrasting, complimentary and still debated theories of optics, which first divided the minds in the 17th century – Newton versus Huygens – precisely when the Magic Lantern became a popular source of entertainment. And indeed, from the evidence introduced by Crary, that embodied perception in the form of physiological optics was the dominant mode for much of the visual culture of the 19th century. So we come to the same point, the interest in embodiment today, but deriving it quite differently in one place by relying or reinventing or reworking philosophy. But obviously, I'm interested in a media archaeological perspective coming to a similar point.

Once monocular perspective is no longer the default value of our ways of seeing or modes of representation, we

discover evidence which suggests that in the history of visual media there have been vision machines, optical toys, and para-cinematic devices that are either explicitly based or implicitly acknowledged as physiological optics as opposed to geometrical optics. Now, one of the people that Crary brings into the debate is Hermann von Helmholtz, who does indeed emerge as a key figure. Helmholtz is the author of foundational *Treatise on Physiological Optics*, he calls it the *Handbuch der Physiologischen Optik*, from 1867,<sup>22</sup> as well as a physiological study of music, *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* from 1863.<sup>23</sup> Helmholtz was also a crucial figure, along with James Clerk Maxwell, Michael Faraday and Heinrich Hertz, in analysing electromagnetism, and thus in laying not only some of the groundwork that harnessed electricity for the generation of energy as both labour and light but that also harnessed electricity for electronics. That is a completely different way of using electricity in the form of circuits, switches and relays and as the basis of signal processing and information processing as well as radio and telecommunication. So, in other words, Helmholtz is also one of those key figures that lead us both into electricity as generating light and energy and electricity as circuit breaks and even, computing.

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22 Hermann von Helmholtz, *Handbuch der Physiologischen Optik* (Leipzig 1867).

23 Hermann von Helmholtz, *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (Braunschweig 1863).

This is an extremely interesting way of talking about analogue and digital now, though using different terms of geometrical optics and physiological optics, but again, through two ways of understanding electromagnetic fields. Indeed, if we go back to German cinema in the 1920s, we have the beginnings of thinking about the cinema again not in terms of realism, but in terms of light modulation. So here you have Walter Ruttmann's optical wave.<sup>24</sup> I could have brought Moholy-Nagy and his *Lichtspiel* (1930), but even films of German Expressionism, let's say *Der Golem* (1920), you can see how this image, if you think of it in terms of intensities of frequencies of energy, becomes much more interesting than when you simply see it. If you read it optically, you read it as distortion and Cubism, but if you think of it in terms of physiological optics, you can actually reinterpret German Expressionism through physiological optics and then have that connection with Helmholtz and his other history.

But if we go to present day cinema, if you think of the blockbuster films that Hollywood turns out, you also find that these films increasingly depart from the frame view, and give the viewer neither a fixed horizon, nor images on a human scale. Think of films like *Gravity* (2013), or *Avatar*, or *Life of Pi*, or *The Revenant* (2015).

Deep space, the Earth's oceans or other planets are merely the narrative pretext

for altering our spatial coordinates in order to recalibrate perception and disorient vision. As it happens, on the flight from Amsterdam to Beijing this morning, I watched *Ad Astra* (2019). It's a terrible story, but it does actually disorient you all the time in terms of where are you in relation to the image. It's a classic father and son story, totally Oedipal, which is simply the architecture to hang these extraordinary images on. Even on the smallest screen in an airplane, you can see the disorienting effect. Never mind if you see it on a big screen like IMAX or in 3D. Disorienting our vision is one of the ways that Hollywood functions.

At the micro level, a similar tendency operates inversely. The image comes too close both visually and viscerally for the viewer to gauge scale or to keep a distance. GoPro cameras as used in certain documentaries, for instance. There was this film called *Leviathan* (2012) about deep sea fishing, where you were so very close to the fish that you, I would say, never want to eat a fish again. They reinforce and exploit these possibilities of putting us in spaces where we do not know how to calibrate our own perception. The digital image allows for these possibilities, conveying tactile sensations and emphasizing haptic qualities and thereby making the image appeal to the sensorial register of touch and the sensitivity of skin. But my main point is, this has not in itself anything specific about the digital because it's been with us since the 19th century and even before. So that's the lesson of media archaeology.

With my brief examples of geomet-

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<sup>24</sup> Cf. Elsaesser, *Film History as Media Archaeology* – chapter 4: The Optical Wave. Walter Ruttmann in 1929: Tracking Digital Cinema.

rical optics and physiological optics as being two sides of the phenomena of light where both optics feed into what is known as cinema, I wanted to show how a binary divide between analogue and digital might be overcome by enlarging the context, by extending the horizon, and especially extending the timeframe. However, it does not dissipate the fundamental ambivalence that I feel hovers over media archaeology, of either fetishizing obsolescence or opening the door to a more utopian future. But it gives this ambivalence a sort of placeholder. That's why I call media archaeology a placeholder, a placeholder in the space of the human.

As a discourse, I think that media archaeology is the ideology of the digital. Without the digital, we wouldn't be talking about media archaeology and yet, if we think about media archaeology, it can do without the digital. It's one of those paradoxes that I'm trying to highlight.

But I would also say, media archaeology resists the digital by saying, we mustn't always think of the new and forget what's been before. So it is both a function of the digital and it resists the digital. That's why we have to be careful that media archaeology doesn't turn out to be the disease to that which it hopes to be the cure, deconstructing and reconstructing the human after the digital and through the technological. I think media archaeology is fundamentally humanist, but in an environment that is primarily or is now posthuman.

We seem to have come full circle, digital cinema revives and reinstates 19th

century physiological optics harking back to these phantasmagorias, but it also brings us back to panoramas – this is from Edward Muybridge, his *Panorama of San Francisco [from California Street Hill]* (1878) – or to dioramas; IMAX screens are really just ways of technologizing dioramas, creating perceptions that augment or add reality to the world rather than represent or reflect the realities of the world.

Emulated by the cinematograph, the optics of the camera obscura led to cinema with the exception of a very brief period of early cinema. You see, in early cinema, you have something like *The Big Swallow* by James Williamson from 1902, which swallowed up not just a cameraman, but the entire epistemology of geometrical optics. That was already the emblem of haptic optics from the cinema, but the cinema diverged in another direction.

If the cinema's digital reincarnation seeks to undo all this by once more giving the spectator both body and sight and the image both volume and site – site-specificity – it is helpful to remind oneself that we are dealing not with antagonistic or incompatible systems, but with dual manifestations of light itself complemented by the genealogies of imprint and trace of indexing signals.

On the other hand, the cinema's purported obsolescence initially debated around the nature of indexicality of photographic and post-photographic media, but now put in the wider context of instantaneity, interactivity and simultaneity by a media archaeology focus on

television and the electronic media also means that the cinema has attained a new kind of freedom. The freedom from primarily ideological tasks. I call it in the book its indifference, its inoperativeness, its uselessness. The obsolescence brings with it the uselessness. Now to this uselessness or this obsolescence can be assigned a different value. This value dovetails with the moving image's increasing importance for museums and galleries. Given that one of the traditional conditions of an object of practice for entering the art space is indeed its disinterestedness, its uselessness, its autonomy. Its freedom from practical uses, and its independence from instrumentalization. So the post-photographic obsolescence of a certain idea of cinema thus converges with a newly acquired status of art. At least within the definitions of the conventionally formulated. This is a sign outside of my home in Amsterdam, "everything is fucking art." So this shows that there's a new way of thinking, but here is the catch: The extension of our spatially configured visual and aural environment, such as we experience it in the data rich augmented realities, is also symptomatic of the rise of the surveillance paradigm, which is emblematic with Facebook acquiring Oculus Rift and Zuckerberg striding past people with goggles on their heads. This surveillance paradigm taking its widest sense is materially affecting our understanding and engagement with images and visual information, both offline and online. In either case, to see is now to be seen, and to act is now to be tracked.

Contemporary cinema, insofar as it participates in this hybridity of visualization, of virtualization and action, plays a duplicitous role when it cognitively and bodily seems to empower the user and spectator, hence this interesting embodiment. It also increasingly releases us from responsibility in the consequences for our actions, which is an ethical challenge we're only beginning to become aware of.

And I would say that images are now no longer considered by our culture as views i.e., as something to be looked at or contemplated, but act more like cues – instructions for action, not to be looked at, but to be clicked on. This is where operational images come from and Vilém Flusser's ideas about images.

However, we should remember what the gain and the loss are in this particular example, because they reverse something that Renaissance perspective accomplished. Namely, it banished the magic powers of images to act and be acted upon, which the Christian religion made ample use of in murals, and frescoes. When the magic of the painted saints, the magic to heal, to console, to intercede and to protect, was a function of that fixture to an actual site, as indeed murals and frescoes and monasteries and churches were. But what is now being instrumentalized is a different kind of agency in images, perhaps known as magical in their effects of viral proliferation of shock and horror. So I'm arguing that we now have a new kind of agency given to images, when we no longer contemplate them, but use them as instructions for action. – Thank you very much.

**Question:** I think this question may be applicable for Professor Elsaesser, because we know that media archaeology and new film history match together fruitfully. There are many books that have been published in this field and you did a lot of studies on the very early stage of films, and on the other end, recent studies up to the very present. So my question is, what will media archaeology do? And what can media archaeology bring to the middle part of film history? The middle part being the classical history of film. Professors like you or like Tom Gunning, who was in Beijing just a few days ago, talk about the very early period, or the very present.

What do you think of addressing the middle part of the classical history?

**TE:** Yes, that's a very interesting point. It's true that I came to media archaeology through the study of early cinema. And indeed, the book that I published in the 90s called *Early Cinema: Space, Frame Narrative*<sup>25</sup> was the book in which Tom Gunning's article on "The Cinema of Attraction" was first brought to a wider public. So I was very much involved in the rediscovery of early cinema and I also wrote in the same year as Tom Gunning wrote "The Cinema of Attraction" an article called "The New Film History"<sup>26</sup>, where I was actually arguing that we need to expand what counts as histor-

ical factors in the history of cinema. At that point, in fact, in that book on early cinema, that's the first time I used the word media archaeology, in 1990, which I took from Siegfried. Now the interesting thing is that I've always looked to Siegfried's work as the counterpart and may even have exaggerated its difference. You know, his first book was on the video recorder, and television, he was very instrumental in the history of television. So he functions for me as somebody who reminds me precisely of this point, that the 19th century was not waiting for the cinema and that we have to explain the very existence of cinema.

And that is already, if you like, a media historical move, to say: Why did something not happen? Or why did something happen when it did happen? You see, this is getting us close to what some people might say is counterfactual history. As it happens, I'm very interested in counterfactual history. That is the things that could have happened and didn't happen, or what would be an alternative to it. Now, as far as classical Hollywood is concerned, you're quite right. There, it's much more difficult to think about how to deconstruct that because not only is it such a consistent practice over such a long time, but you have such powerful defenders of classical cinema as David Bordwell and Kristin Thompson. But if I were to do that, I would go to what I was suggesting, namely, the relationship between classical Hollywood or the Hollywood studio system, and the fashion industry, or department stores, or gramophone music. Whereas for somebody

25 Thomas Elsaesser (ed.), *Early Cinema: Space, Frame, Narrative* (London 1990).

26 Thomas Elsaesser, *The New Film History. Sight and Sound* 35/4, pp. 246–252.

like Bordwell, perhaps the western or the thriller are the important genres. If you were to do a media archaeological re-writing of classical Hollywood, it would be the musical for instance; if you look at Busby Berkeley musicals, they have come from a different world. If you look at Fred Astaire, at Ginger Rogers dance, you come to something else. People are now rewriting classical Hollywood in relation to its representation of racial minorities, or different sexual preferences. So those would be ways of deconstructing that normativity of classical Hollywood. I myself was very much involved in a slight deviation of this, with my interest in *film noir* and the importance of *émigrés* from Germany in bringing German Expressionism into American cinema, or in the melodrama, when I first wrote my piece on melodrama in the 70s, that was as a deviant genre and not as a mainstream genre. So you see that I've always been trying to look at the margins of a particular practice rather than at its normative centre.

**SZ:** I would like to discuss with Thomas something which is not so easy to express at the beginning. I think that we share a deep passion. That's the first thing. We share a passion for something which some people simply call cinema or other people call film. But the passion we have in this obscure object of desire is, in my opinion, much wider than just the lifespan of 100 years of cinema, for example, or just the lifespan of a specific genre of cinema, or a specific sort, *Gattung*, or even a specific fashion within the history

of cinema. The passion is broader.

I can formulate it for myself, and I've tried to explain it a little bit this morning, but I would like to ask Thomas also to formulate it. For me, it's very much this interrelation between art, science and technology, what interests me. This is what I grew up with at the Technical University of Berlin. And after decades of doing history and archaeology of media, it became clear for me, this is the tension I'm really interested in, and of course, this triangle, this tension has a deep-time history. This led me to a lot of questions regarding deep-time. And as far as I know, in Thomas' work and his books, and in his thinking, this murmur of something which is much bigger than the cinema, much bigger than film is also very present. I would like to ask you, as a start, if you would like to say something about this passion which motivated you to work so madly for decades and write so many books and so many essays and teach so many students. That is a strong energy.

**TE:** Yes, it's slightly different from what you were saying. And I suppose the technical side, the scientific side is less pronounced in my case, although my father was an electrical engineer, so a lot of that part of it, the apparatusic side, the *bricoleur* and so on, was very prominent. And if you come to [the screening of] my film tomorrow evening, you will see that history. I don't want to pre-empt that part of my own biography. But in actual fact, my coming to the cinema is rather different insofar as I come from literature. My doctorate is in 19th century literature

and historiography. So I've always been very interested in history. But it had for many, many years a literary bias. The day before yesterday, I was giving a talk in Frankfurt in Germany, about how I participated in the May '68 events in France, and how strongly I was attached to the theories of *Cahiers du Cinéma* in the 1950s.

And that was very strongly based on *auteurs* of Hollywood. I was born in the last years of the war and I was brought up in the American zone of Germany, so I grew up with Americans right next to me. And so, the passion, but also the ambivalence has to do with America. What America represents for Germany, after '45, what America represents in the 20th century, what Hollywood represents. So through all these years, I keep coming back to Hollywood. It doesn't let me go, even though politically I was very militant in '68. I was a member of the French Communist Party for a year. So that kind of sort of what you call the passion for me is a vital contradiction. It was the contradiction of my political views, and my love-hate relationship with America and Hollywood, that was a driving force and still is a very strong driving force. Now, as far as my cinephile predilections are concerned, they almost go by decades. In the 1960s it was Jean Luc Godard. Every film of Godard was a new discovery, was a new way of thinking about cinema and was a way of fighting with...

**SZ:** Godard also has this ambivalent relation...

**TE:** Exactly! But in the 1970s, it was Rainer Werner Fassbinder that I followed religiously and I actually wrote a book about his work. He was deviant. He was also fascinated by Hollywood, but he was deviant in relation to Hollywood, he was deviant in relation to heterosexuality and heteronormativity, was deviant in relation to images of Germany, and so on and so forth. So he was a rebel as well, but again conflicted in much the same ways that I felt conflicted.

And in the 1980s, it was Harun Farocki. Now, you cannot imagine two more opposing figures as Fassbinder and Farocki, and yet that whole sense of media archaeology, my work on early cinema, was accompanied by Farocki's films. He was the filmmaker of media archaeology, before I had even fully articulated, theorized and verbalized it.

And in the 1990s, it's actually Lars von Trier who, for me, was the key figure of cinema. So I've had somebody almost every decade, a figure, a filmmaker, a thinker, a controversial figure that guided me in some way. I think that's where I would locate the persistence. I mean, I have published a book called *The Persistence of Hollywood*,<sup>27</sup> which really means the persistence of this contradiction. And I think that is symptomatic of the 20th century, at least for my generation. So for me, media archaeology is also ridden with contradictions, tensions which I've tried to explain a little bit in my talk today.

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<sup>27</sup> Thomas Elsaesser, *The Persistence of Hollywood* (New York 2012).

**SZ:** If I may continue with that a little bit. I think that something is driving your ideas, which leads us, perhaps, into a potential space beyond cinema into a future where all these things which have been so attractive for you might continue but also may not continue. They might be there in a different way. And your interest in the archaeological approach might correspond with that. You talked about the counterfactual, the anarchistic value of cinema – it's so difficult to really grasp it, it will always slip away when you are trying to define it, and so on. And this is also relevant for that which we can imagine for the future, but at the same time, of course, we don't want to lose it. We don't want to give it up only because the technological circumstances are changing, or the cultural circumstances are changing. Because people now prefer to be on their own with their little machinery, and don't like to be together with others anymore in a public situation.

**TE:** I think I do both. In a peculiar way, cinema has not disappeared as a social space. In fact, cinema for most people has always been going to the movies. It wasn't, "I'm going to see a John Ford film tonight", it was going to the movies, it was always an experience. And so what we're recovering and maybe, here, we academics, we people coming from literature, made a bit of a mistake. We thought of films as texts that needed to be deciphered. Moviegoers have always thought of films as events and experiences. And we're now recovering that event and experience dimension as opposed to the

text and reading. And at the same time, there is also this question, and this is the one that I've been talking about in my mobility argument, whether Hollywood was in the business of product or of service. I think much of Hollywood was actually a service industry, providing comfortable seats, warm spaces, big feelings, these are all services and not products. Until the videotape and then the DVD, you couldn't physically own a copy of a film. I'm old enough to remember that I had to travel sometimes twenty, thirty, fifty miles to see a film that was only shown one evening, somewhere in a London flea pit cinema out in the outskirts. Now, you can click on YouTube and you have the same film five times in different versions. So cinephilia – that is what Siegfried calls the passion for cinema – had a lot to do with the effort you had to put in to actually see the film you wanted to see. The more effort you put in, the more valuable it became. So I used to say to my friend, when they said, "Well, you know, this Nicholas Ray film, it really wasn't that good." and I said, "Look, I travelled fifty miles to see this film. It had better be a masterpiece. And if it isn't, I'm going to make it one."

**SZ:** Good idea. I remember our discussions very well when we started all this archaeological terminology and an idea and the concept was very strong, the French apparatus theory, or with Michel Foucault, the *dispositive* cinema, the very specific *dispositif* of the cinema, "l'appa-

reil de *base*<sup>28</sup>, as Jean-Louis Baudry put it. How important for your work, for your passionate work is this notion of *dispositif*? How much does it pre-occupy your concept of the cinema?

**TE:** Well, this is what I was talking about when I now identified geometrical optics. This is very much the *dispositif* of Plato's cave locked into a space and having a geometry of vision, which means that you sit here, you have the screen in front of you, the projector is behind you, you think the image is there, but the power of the image comes from the projector. That's the power of the apparatus that Baudry taught us to understand. That was the ideological function, the ideology of the basic apparatus. Now, what's interesting about this for a media archaeologist, is that Baudry formulated this theory at exactly the point in history when going to the cinema and having no other space for viewing films was disappearing. In actual fact, it was formulated at the same time that one had television with a remote control and the first video recorders.

**SZ:** It was after Roland Barthes' famous essay "Upon Leaving the Movie Theater"<sup>29</sup>.

**TE:** Yes, now that's something else. So what I came to think about is that very

often, theory, and film theory in particular, is the funeral service of a practice. So that there's always delay. Although this is a little bit polemical in calling it the funeral service of a practice, it is what I was doing today as well, by saying that only when some other technology emerges one can see a previous practice as being historically determined, and to some extent arbitrarily, rather than necessary and inevitable. In other words, you can only see a certain practice once it has become obsolete or been displaced by something else. So it's not as if some practice disappears. No medium makes another one completely redundant, but you have a different view on it. For me, the digital gives me a different view on the analogue, on media history, on film studies. And that's what I'm grateful for, even though I don't think the digital, as I said, is a determining factor of many of the practices we are now seeing as contemporary.

**SZ:** If it's okay for the audience, I would also like to address some of your critical and some of your methodological thoughts you have presented. I was very curious when you suddenly started to use – that was around Bazin – the term genealogy. Genealogy is a term which I myself sometimes use analogous to what I call *an-archaeology*. I think of course of Nietzsche and his great writings on genealogy and history. And of course of Michel Foucault...

**TE:** ...who changed from archaeology to genealogy.

28 Jean-Louis Baudry, Effets idéologiques produits par l'appareil de base. *Cinématique* 7/8 (1970), pp. 1–8.

29 Roland Barthes, En sortant du cinéma. *Communications* 23 (1975), pp. 104–107.

**SZ:** Exactly. I would like to ask you about your specific concept of genealogy. One very important point as far as I understand Nietzsche and Foucault in this context is, that it's a long goodbye to what we can call the search for the origins. "The origin is a trap" – as far as Foucault is concerned. Genealogy has a much more open movement through labyrinth-like connections, and derivations instead of origins, is that right?

**TE:** Yes, I would say that as well. One sense of genealogy is precisely that it opens up these different venues... that branches, and trees on one side and rhizomatic graphs on the other, to use Deleuze's and Guattari's distinction. So it is a way that something disperses itself, it's a network and... six degrees of separation, if you know about the way that connectivities and contingencies and accidents feed into a constellation that recognizes and in some way, determines it. That would be one way of thinking about it. Because archaeology does at some point suggest too much of this model of depth. It's a horizontal model we want, when in fact, archaeology is too vertical a model. But now of course, you would say you're a verticalist, whereas I might be more of a horizontalist. However, there is also a downside to genealogy, which is why I still prefer archaeology in the end. And I will be giving a talk here, called "Trapped in Amber", where I will go a little more into what I see as the value of the archaeological model. The downside to genealogy is that very often in family stories, a genealogy of a family starts from

the present and goes back to the past. Now, in one sense, that's good, because in all our questions we must ask ourselves, why are we doing this now? From which position are we speaking, are we reinvesting and re-interrogating? I know this famous joke from the Soviet Union, where somebody goes and asks the commissar, the politburo, "Comrade Ivan, I'm very worried about the future." And comrade Ivan says, "Don't worry about the future. It's all set out in the five-year plan. It's the past I'm worried about. I have to rewrite it every year." And I think we are in the rewriting every year of the past situation. So that's where genealogy also is a slightly problematic terminology.

**SZ:** We talked about that in the morning a bit, I used the term "potential space" from Winnicott, and I used it with regard to the past and to the future, the openness of the possible futures that might come and in a specific sense, the openness of the past, which we currently have to run and reconstruct.

**TE:** Well, in this relationship between past and future I prefer to refer to Walter Benjamin. Because Benjamin has made a very interesting observation in his essays on Surrealism. I mean, he has a very interesting theory of art anyway because he says, an object of art used to be an object of a cult or an object of use, and only when it has become useless, can it become art. But there is a further dimension to that, this is why I'm so keen on obsolescence, a term that is both positive and negative in my thinking: We now have a

tendency to collect objects that have become useless. And we discover aesthetic qualities, we discover other uses, we discover possibilities. So, the condition of something having a future from the past is that its primary uses, or its economic potential has been exhausted. And then it's therefore ready to be discovered in its uselessness as having utopian potential. That was Benjamin's way of arguing that utopian potential is the condition of something in the past having become obsolete in relation to its primary functions and uses. What's important is that somehow there has to be a rupture, there has to be a break, there has to be something that differentiates. Something that breaks the continuity, and then it allows us a new assessment, a new valorisation, a new perspective, a new view on this object, on this practice, and there we can discover something that we can take into the future.

**SZ:** This is also very Althusserian. Althusser liked to work with the notion of *clinamen* [Epicurus/Lucretius]. He described it as a moment of irritation, which creates a change. Like Lucretius he uses the rain as a metaphor; the rain is falling down, drops are falling parallel to each other and then suddenly there is something like a window opening. And the change of the direction causes a lot of changes like the wing of the butterfly – the change is always an irritation, or the cause of change is always an irritation. It's not continuity. With continuity, the world would be very, very boring.

I would like to come to an issue, a

methodological question and also a theoretical question which you addressed but did not really discuss explicitly. I was very interested in what you said especially when you were discussing media archaeology in a critical way. And with a critical gesture, I think this is extremely important. I completely agree that it has a lot to do with the arrival of digital media and so on, that's absolutely clear. It has also to do with the arrival of media archaeology, and especially the popularization of media archaeology. It has to do with an important, let's say, historical element regarding our own field. We grew up in the 1960s and in the 1970s with, I would say, a strong focus on the studies of political economy, studies on historical dialectical materialism. So this was always part of our study and of our research. We grew up with critical theory with Adorno and Horkheimer. And, of course, Benjamin, and many others. The new generation of media archaeologists, especially those who started around the turn of the millennium, Parikka and others you mentioned, they have hardly any connections with this kind of materialism. Put simply, for many popular media archaeologists, media archaeology is media history without the historical dialectical materialism. What do you think about this thesis?

**TE:** Well, it's a strong thesis. Clearly, it's true that the whole philosophical debate has shifted. I mean, our generation was quoting Adorno, today it's Heidegger. In our time, Heidegger was a complete reactionary, I mean, not only was he a

Nazi, he was philosophically totally unacceptable. However, we have learned to reread Heidegger in a completely different spirit. And of course, nowadays, Heidegger is read as a materialist. And, you know, everybody quotes the world picture, and what is technology, and so on. So, one has to ask oneself, where does this come from? Obviously, it's a Heidegger that's not a German Heidegger. It's a French Heidegger. It's Derrida, Nancy and Lacoue-Labarthe, and so on. So what we really have to talk about is, why do the French have such power over discourses? I find that extremely interesting because coming from literature, I realized that the 19th century novelists we think about, it's Dickens, it's Balzac, it's Dostoyevsky and Tolstoy. It's George Eliot, if one is an English specialist. However, the socio-economic study of the novel in the 19th century shows that all the valorisation of what we now call the bourgeois novel had to go via Paris. For instance, Charles Dickens was not transported from Britain to America directly across the Atlantic, but went through the valorisation of France; the same thing with Manzoni in Italy, Dostoyevsky, and so on. It was the French novel and the French discourses about the novel that actually made so many adopt some of the strategies of the novel in their own national literature; Stendhal would be another name. So throughout the 19th century, France, Paris, had the power to determine taste in the form of the novel. And what happens in the 20th century, France determines everything we think we know about the cinema. So the

medium has changed by the power of determining what is valuable, and the ones who give the criteria are French. And likewise, we're now using the philosophers that have been adopted. Either they're French like Deleuze or Derrida, or they are philosophers who were reappropriated. Even Hegel, when he was read, he was read through Kojève in France. All the German philosophers actually had to go to France to come back in order to become internationally valuable. So my question is, why does this small country, this relatively minor nation has such an extraordinary power? I don't know whether you can give me some help. I don't have an answer.

**SZ:** I think one possible answer is that French philosophy generally speaking, is a very poetical form of thinking. The texts are extremely accessible and attractive in a poetical way. The French philosophy, at least in the last, let's say fifty, sixty years, developed this style of poetic philosophical thinking much more than German philosophy; I mean Adorno is hard, dry stuff, very analytical, very sharp. So is, of course, analytical philosophy, the traditional analytical philosophy in the United States and England. But the French have a soft way of formulating philosophical ideas, very seductive. Like literature on love and passion, very poetical.

**TE:** Yes, but there's also that the French are good at philosophy, they're good at cinema. They're good at cheese and good at wine, and at missiles. So they've actu-

ally spread it across a fairly wide spectrum of desirable objects. Maybe that has something to do with the language, also what you say about the feel for beauty and for a particular kind of elegance. But nonetheless, I think it's worth reflecting just the persistence of the power of determining how we think and what we think about. That really, I have to say, as much as I sometimes get totally irritated with the Parisians because they're so parochial and so inward looking, and nonetheless, in that sense, I think there's a parallel between Hollywood and Paris. Hollywood is completely self-absorbed, and yet has this power to spread its word or its images across the world. Also Paris has this power. Maybe one has to be totally self-absorbed in order to generate that kind of energy, maybe that's exactly the ways China has to learn.

**SZ:** Like smoking Gitanes or Gauloises cigarettes after one has been to the movies and watch Godard films. I think it's also a matter of having a specific idea of existence. The French, not only in the narrow sense of *Existenzphilosophie*, existential philosophy, but in a broad sense, they have this ability to develop their ideas as kind of an offer for a specific intellectual existence. And this is highly attractive for many people, for a specific group of people. An existence which is not as administered. Most of the French thinkers did not even have regular professorships or if they had them, they had them very late. You know, Derrida was never accepted in academia. He was an anarchist, so to speak, within academia.

**TE:** However, there is something else. It's very important: Famous French philosophers commit suicide. Gilles Deleuze committed suicide, Guy Debord committed suicide, Christian Metz committed suicide and Roland Barthes committed suicide.<sup>30</sup> We're talking about *joie de vivre* and we have to factor in that the great names, and there are a few others as well actually that I'm not recalling... that there's a long tradition of, when your work is done, you act out the final gesture. Maybe that's part of it. The final gesture is to take life into your own hands in this way. So here's another nugget to ponder.

#### [Question in Chinese]

**SZ:** You mentioned something very important for my own work, when you touched on the Weimar Republic and the 1920s. This is also extremely relevant for Thomas Elsaesser's work. Everything I learned about cinema in the Weimar Republic, more or less, I learned from him. But we have heroes from that time, intellectual and artistic heroes who had been extremely important for what I nowadays call "media anarchaeology." I will just mention two or three, who have not been mentioned so far.

Of course, Walter Benjamin is important but writers and thinkers and dramatists like Bertolt Brecht, for example, were extremely important. I grew up with

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30 Editorial Note: Roland Barthes actually died from injuries after being hit, as a pedestrian, by a van in the streets of Paris. It never became really clear if he crossed the street intentionally at this dangerous moment.

Brecht at the institute in Berlin, because his work was performed very frequently in theatres in East Berlin. It was possible to go to the other side of the wall and to watch and to listen to the theatre pieces. Brecht had already formulated in the 1920s – this is all forgotten somehow – a theory of radio which already implicated everything that became valuable in technology-based communications later. The idea of networks and interactivity and all of this was formulated in 1928.

Or take somebody like Siegfried Kra-cauer, for example, who was very influential for my thinking and for my writing. In fact, the book which Thomas Elsaesser mentioned, on the history of the video recorder, starts with Kracauer. He was a thinker with a wonderful form of writing, who was able to locate aesthetical questions as aesthetical issues in the broad context of the social history of political economy questions, and of course, of historical questions.

So the connection of the period between the 1960s and the 1970s in Germany with the Weimar Republic was very strong. In a specific sense, the Weimar Republic was like the first Russian avant-garde, and it was a kind of utopian imagination for us. And I use this term “utopian” very consciously because for me, this archaeological gesture was always connected with utopia, with the impossible place. And it’s extremely important for classical archaeologists, when they are diving into the deep-time, that they are always looking for constellations which are much richer, and to put it simply, much better than the present.

And this may answer a little bit your question about prospective archaeology and the potentiality for the future. I’m a post-romantic person, a post-Novalis person and I believe deeply in this notion of utopia. Otherwise, I would not be doing the work I’m doing. I find in the past, in the deep-time of the past constellations, things which I might take as an energy into the future.

I’ll give you one example. I studied cryptology of the 16th and early 17th century. Cryptology is now a cultural technique, which we have to relearn. In the context of internet communication we know that everybody is controlled everywhere. We have to relearn, how to keep secrets. Cryptology was highly developed in the 16th or 17th century for various reasons. What is very important is that cryptology was not a standardized technology. Rather it was full of variants, many different variants. And I want to take this variance, this multitude into the present and into a possible future. This is what I mean with prospective archaeology. But without the idea of utopia, a better world, it would not work at all. It would be blood-less, it would be ice cold and I would not be interested in it.

**Hongfeng Tang:** What’s the true difference between linear time and genealogical time? What’s the true difference between media technology and media history? You still use the word time...

**SZ:** I would like to address this because I noticed that we both address a lot media archaeology and history and the relation

between it. Regarding linear history, the established concept of history – not all the historians write linear histories. Histories can also be very dynamic and very confusing. It would be completely wrong to name all established history as conventional or linear. That's much too easy. But the dominant concept of writing history is the notion of progress, is the notion of civilization, which you can imagine in the form of a cone with a primitive beginning and then a bright development into the future. Technologies improve permanently, life quality improves permanently and so on. I deeply doubt this notion of historical progress. In my time machine, I sometimes visit constellations in the past, which are much richer and much more interesting than the present. And perhaps even some futures which I can foresee in the form of models. This is very important. And it has to do with – and this is a methodological question – the criterion I use for, let's say, excellence and for life quality, or however you want to call it. From the palaeontologist's view, such as Stephen Jay Gould's, I learned that the development of our civilization was staunchly geared towards standardization to reduce variety and multifariousness. And this is exactly what I do not accept. By going through deep-time, I want to take the varieties I find in the past into the present, and through the present into the future. This is a different concept compared to the traditional writing of history, because it's beyond the idea of what we call historical progress.

And when we look at the state of the planet at the moment, of course, this

comes up again and again. We know that every minute, a few species in the world of plants and animals are dying, that every day we are losing a lot of these variations which have existed in the history of the planet. And I don't believe this is a necessity. This is why I need a different kind of concept, and of course this is also relevant for media and for media technology. No standardized future with five companies ruling the world. Even two or three companies ruling the world of mediated communication. This would be the end of any kind of multifariousness. We need the opposite. We need heterogeneity and multiplicity.

### [Several Questions in Chinese]

**TE:** Well, thank you very much. This was extraordinarily interesting and diverse, but also quite coherent in the way that very different aspects came to the fore. I'll try and respond to perhaps all of them in one short passage, or two.

I want to start with the notion of history versus archaeology. What you were saying, that history tries to have a coherent narrative whereas archaeology seems to be primarily concerned with a fragment, that's correct. But that's not the only way of thinking about it. Clearly, what we have emphasized is a particular notion of history which is primarily concerned with linear progress.

But the 70s are so full of different versions and different concepts of history that we really need to be more specific. Obviously, the one that Siegfried was referring to is also the one Lyotard pos-

its: the end of grand narratives. In other words, that is one of the breaks. Also the Marxist notion that history is the driving force, and it's the contradiction between the classes and the modes of production and the means of production... The whole Hegelian notion of history had come to an end in the 70s.

But if you look at practicing historians, you see an enormous diversity of approaches. You have, for instance, Hayden White, who actually challenges the notion of a coherent narrative as being somehow related to reality rather than to rhetorical figures and tropes. You have Paul Ricoeur talking about different forms of history. You have a German historian called Reinhart Koselleck, who actually uses a little word game that you can do in German between "Geschichte" and "Schichten" – "Schichten" means layers and sedimentation, and therefore relates already to an archaeological notion. He was not an archaeologist, but his notion of history was already one of layers and sedimentation, which is different from the pun you can make in English, where history and story are very close together. In other words, where history is already narrativized. Now, Frederick Jameson is another important figure who had another notion of history yet again in the 70s. So if we're really talking about history, we have to be much more differentiated. However, I also think that there is more to be said about archaeology in this respect.

You say archaeology is basically a fragment. But at a philosophical level, what has become very important around

the notion of archaeology is also the question of causality and contingency, and much of the work that has been done, both in terms of narrative analysis and in terms of history, has to do with the status of causality. Now, that's obviously a very big topic. The phrase that I always use is that contingency is our new causality. But that is also technologically determined, because it is through the use of computers, through the use of big data, through the use of pattern recognition that we have changed our notion of causality. Causality is not something fixed. Causality is a historically determined relationship between tools and tasks. This opens up a whole new field, which I think has to do with archaeology.

However, even if we look just at archaeology, there are two kinds. Classical archaeology goes to a site and wants to look for the masterpieces, wants to put together the vase or the temple or the statue. Contemporary, or if you like, "archaeology mark two" doesn't go to the marble fragments. It goes to [questions such as]: Where did that civilization cook its food? Do we still have its faeces? Can we find out what they ate? Can we find out what they cooked? Can we find out what they wore? Think of the most extraordinary find in archaeology of the late 20th century. The Iceman, Ötzi. This has completely changed the notion of archaeology because you needed DNA, you needed forensics, you needed biology, you needed chemistry, you needed textiles. This one body found in the glacier in the Alps radically changed the way we think about archaeology. In other words,

completely different sciences are now drawn upon to reconstruct not the masterpiece, but the way our civilizations lived. You have the forensics of it. It turns out that he [Ötzi] was actually shot by an arrow that they found.

And if we transfer that to media, we see the difference between a film history that went for the great masters and the great masterpieces; a notion that it started with Griffith and then Eisenstein, and then came Fritz Lang, and then came Hitchcock, and then came Orson Wells, from one master to the other. That's the archaeology of mark one. The archaeology of mark two is the media archaeology that we are now doing. We're looking at all the aspects of it and we're not particularly interested in the masterpieces or the unique masters. So I think the notion of archaeology as simply about fragments cuts this one short, as indeed the notion of history as a coherent narrative, which is also in need of a slight revision.

I want to take up another point which was made about toys. I think that's very interesting because yes indeed, around the time of the cinema as I pointed out in the 19th century, you had the phénakistiscope and the stereoscope as toys, but Plateau was a scientist; Holmes was a scientist for the stereoscope. And indeed, most of the people we now see as part of the genealogy of cinema, Marey, Muybridge, Janssen etc. – they were scientists. Even the Lumière brothers' work got more interest in scientific aspects of colour theory.

Something that very few people know is that the Lumières made some major

developments in fitting artificial limbs to the victims of the First World War who lost limbs. In other words, they were thinking stereoscopically, about the human body. And by that time, they had completely lost interest in cinema. So that scientific impulse is very deeply embedded, but so is the ludic one.

And indeed, if you go back to German philosophy, for Friedrich Schiller, game, play is a very important aspect of the imagination, and imagination is again very important for any kind of scientific discovery. As we know, science and the scientists very often have to rely on their imagination. So there is a very close link there. Indeed, you can say that scientific discoveries or inventions were hijacked by an entertainment world that was already fully established. I mean, the cinema didn't naturally enter the entertainment world, the entertainment was musical theatre, Vaudeville, circus, magicians' tricks, lightning sketches, and so on and so forth. The 19th century had a fully established public entertainment world into which the cinema entered, and then it was taken over in some respect.

But if we're now going to media archaeology, what we find is that we are rediscovering the toy side of it, but we're discovering it as a philosophical toy. In other words, they give us a reflection of so many other things. That's why philosophy is such an important element of media archaeology because, again, the toy is not a utility object. The toy is useless in the practical instrumentalized term. So all the things that I was saying

about obsolescence and what we're saying about utopia, has a very close relationship to toys, but now within a much broader context, which I would call philosophical. So you're absolutely right, there's the science-toy relationship, but there's also the philosophy-toy relationship. And if you like, entertainment really comes from outside.

You were talking about media archaeology in the museum, right? You're absolutely right. You mentioned Erika Balsom's book that I published in my series.<sup>31</sup> Also the course that I've been giving for years at Columbia University on moving image in the museum. And indeed, media archaeology has had a major boost through artists in museums, in galleries, or documentaries or biennials, rediscovering certain aspects of the cinema. But that has also to do with the so-called "death of cinema" that everybody was talking about, right around 1995. In fact, the centenary of the cinema's birth was also its death. And so, the art world and art spaces have now selectively appropriated aspects of cinema. The museum is a completely different space compared to the cinema – you walk around, you have your own temporality and so on. What happened to the cinema is, it became spatialised. And so, if we think of the cinema as a time-based art, if we think of cinema as narrative, it gets retranslated into something else in the museum. It gets remediated through the different *parcours* or the different trajec-

tory that the visitor takes in a museum, as opposed to the cinema where you're locked to your seat. Also, the very notion of installation as a multimedia combination changes the nature of cinema.

So you're absolutely right. One of the major aspects of media archaeology is that it found a new home and a new energy and drive through commissions that museums were giving to artists. Indeed, the filmmaker that I mentioned, Harun Farocki, is the classic example of an avant-garde political filmmaker becoming world famous as an installation artist. You have Chantal Akerman, Ulrike Ottinger, Abbas Kiarostami, all filmmakers who find their work in the museum, partly because so many of the avant-garde cinemas disappeared, so there was no way of showing it. And partly because the museums were much richer and had more money to commission filmmakers to make new work than anybody else. So, a complicated but very well perceived relationship between media archaeology and the museum.

Then we had something about resistance. Now, I think maybe media archaeology is a resistance to the new as new. It's a resistance to thinking not only of the new as new, but also that the new is better. We come back to media archaeology being a resistance to teleology even more than to linearity. It's a resistance to origins, but also recently to teleology. Especially a teleology that celebrates or promotes the new for the sake of the new and for the sake of the better. Just think of the tyranny of the updates, the upgrade of the operating system of your

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31 Erika Balsom, *Exhibiting Cinema in Contemporary Art* (Amsterdam 2013).

software. That is the planned obsolescence of software and hardware firms, which have a vested interest in the new as better and something you absolutely need. And I think media archaeology resists that for precisely the reasons that we've been talking about.

Obsolescence, a very important part. I said that 3D archaeology, for me, is a placeholder. It's a placeholder for how to define the human because I think, one of the anxieties, certainly in the part of the world where I come from, and Siegfried hinted at it, is the obsolescence of us as the human species; artificial intelligence and robots and cyborgs, etc. So valorising a new obsolescence of technologies is almost by substitute a recognition of our own vulnerability in relation to radical new changes in intelligence technology. And this is where Kittler is such an important person, because Kittler is a technological determinist. He actually said, "human beings at any stage in their history have always been the technologies that they use for communication."

Film studies, as indeed many other concerns of interest, comes from the humanities. And the humanities have traditionally been technophobe rather than technophile. You mentioned Hugo von Hofmannsthal and language and literature. I mean, there was a huge crisis of literature in the 20s, where people thought, "Oh, with a cinema, we will lose our jobs." And anybody who was writing for film was actually classified as a betrayer. So Hofmannsthal brought this to a very high level of philosophical reflection. It has to do with a problem of a new

language that's coming in, which was somehow invalidating or challenging the literary language.

It also has to do with that sense of technology. What is the function of technology within the humanities? As I said, I come from literature and the humanities and Siegfried comes from a technical university and technology, but that is the area of negotiation. Can we define the human through the technologies that we're now so dependent on and actually are constituted by, or do we need to have a form, an understanding of the human that actually separates us? Anyone who goes to Freud will say, "Well, what makes us human is that we are fallible. Not only that we are mortal, but also that we're fallible." Technologies are always trying to perfect themselves. So media archaeology is very interested in the things that don't quite work. Media archaeology likes failure, it likes the glitches, it likes the things that are a little bit dirty, or incomplete. This is where the fragment comes in. The incomplete is actually that which shows that it's still human, it's still able to function in an organic way, rather than totally technological. This is a very important aspect of media archaeology, renegotiating what is human within a broadly and if not totally technological environment.

I've been working on something called, "The Cinema: In-Between the Animated and the Automated."<sup>32</sup> And by animated,

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32 Cf. "The Cinema: In-Between the Animated and the Automated," lecture by Thomas Elsaesser at Whitney Humanities Center, Yale University, September 25, 2018; <https://filmstudies.yale.edu/event/thomas-elsaesser-cinema-between-animated-and-automated>, access: December 23, 2020.

I mean the *anima* of the soul and the automated – we're talking about algorithms. Algorithms are now capable of modelling human behaviour in real time almost better than we are ourselves. Think of Amazon and Facebook predictions etc., where we see the way that our inner most human beings are being modelled by mathematics, basically. And this is part of what I call the placeholder. Media archaeology as a placeholder in a position where we don't quite know what the definition of the human is for the 21st century.

And finally, to pick up your point about symbolic form, and then about gendering. Symbolic form in my article comes from Erwin Panofsky and his article, "Perspective as Symbolic Form."<sup>33</sup> And what I'm pointing out is that only at the point where that, in this case, perspective is no longer the norm, one can see that it's a symbolic form. Because the symbolic form in Panofsky's sense, is the blind spot from which you see everything but which you cannot see itself. In other words, as long as you think – as we saw it, because you in China never did – that perspective is natural and somehow inevitable, we couldn't criticise it. Only at the point when it's no longer dominant, one can see that it has these consequences and it is actually historically contingent. This is the point where we have to say, "We don't know what our symbolic form is." Maybe it's surveillance, but that

doesn't quite hit it. It's because we're right inside that we cannot name it. And so it's the requirement of having that, I call it rupture, the French call it *decalage*, the slight difference, the shift that then allows us to see what we already knew in a different light.

And you're quite about the gendering. In my article on Freud, I do talk about it because psychoanalysis is basically the result of men analysing or observing hysterical women – women who are more sensitive to, more exposed to, more vulnerable to particular social structures, whether it's patriarchy, technology or new labour regimes. Whatever it is, they [psychoanalysts] are the media avant-garde within particular social structures. Charcot, Breuer and Freud were all using women to find out what's going on in the soul. So in that sense, they were the media that allowed that kind of insight. In a more practical way, women have been used as media – media in the spiritual sense – for many, many decades, if not centuries. And yet when industrialization fully took over, when the technologists came in, it was women who became the typists and the telephonists. That's the other important feminization. So there is actually a history of women being mediatized and at the same time of media being feminized.

**SZ:** I will address all of your questions with just a few points as an expansion to what Thomas said. What you discussed or what you started to discuss about game, this is a research project in itself – the *homo ludens*. It has all these

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33 Erwin Panofsky, Die Perspektive als "symbolische Form", in: *Vorträge der Bibliothek Warburg 1924/25*, ed. Fritz Saxl (Leipzig 1927), pp. 258–330.

aspects that Thomas mentioned. But following, for example, the ideas of philosophers like Vilém Flusser, you come to a much broader point, which again, is strongly connected with media archaeology. For Flusser, the *homo ludens*, the playing human being, is the identity of the future. And now the research project begins. If you have such a thesis, which has to do with new technologies and the way labour is changing, you can go into the deep layers of history and find these identities of different concepts of *homo ludens* and try to find out where the souls of these concepts are. And this is extremely fruitful for developing something for the future.

I started to make something very clear which none of you mentioned. I started this archaeological work rigorously for a very important reason. And please try to follow me a little bit. I worked in the 1970s and through the 1980s in the field of so-called new media and technology. I was the first who wrote a history of the video recorder, when most of my professors didn't know what a video recorder was. With this competence I became responsible for the future. I built up an art academy for art and media since the early 1990s. Nearly every conference, every symposium where new media were discussed, I was invited. "Please tell us how the future will be." I was really frightened, and I said, "I cannot answer this question how the future will be." I had to invent a tactic with which I could partly respond to this question, but in my way. And this is where this whole notion of deep-time became extremely interesting for me. I

started to make extensive dives into the deep-time layers of the past to find constellations, which might be fruitful for – not solving the problems of – the future, because we don't know what the future will be, but at least addressing some of the issues or themes which might be relevant for the future. And again, the notion of multitude, of multifariousness, of variations is extremely important to oppose standardization and universalization, which I fear very strongly for the future.

Related to this, and something which I think is important to address very clearly at least from my point of view: I do not think, and I do not suppose that media archaeology is a new master discipline. This would be a completely wrong perception. Media archaeology is just the opposite. It's beyond disciplines. It is discipline-less, so to speak. Of course, it needs a lot of disciplines because it's basically an activity connecting different disciplines, but it does not want to become a master discipline.

This is essential. So there should be no fear. I remember a similar discussion when semiotics was invented out of linguistics in the 1960s with Umberto Eco, Pier Paolo Pasolini and others. There was an attempt to create a new master discipline. Semiology should be the new master discipline. Everything became science, science, science. But media archaeology is a nervous activity, an activity transverse to the existing disciplines. And it's best located in between and not at a solid place which you can identify within a university structure. So in a specific

sense, it's also an anarchistic activity.

"Beyond disciplines" is an important gesture. Our references in philosophy are not so much the academic philosophers. These are people like Vilém Flusser or, in France, Gaston Bachelard or Roger Caillois and others who were also not disciplined in a specific sense, shifting between different disciplines. This helped us a lot to think what we were trying to think; linearity and non-linearity. I even make the mistake sometimes by using the term non-linearity. I should not do it, because I think non-linearity does not exist. I talk about multi-linearity instead, because what we also have in statical perspectives is a multi-linearity when it comes to so-called new media, not a non-linearity. It is impossible to write history or to make history through other media without any kind of linearities. But what counts is the complexity of linearities and how you put the different linearities together. To a consistent construction, definitely not.

Of course, what we write, what we do, what we make should be coherent, but it should be coherent newly every moment, and with every research project in a different way. So, coherence is not something that you can define in a dogmatic way, but that you must permanently generate anew. I learnt this from a famous chaos theoretician and physicist. You will not know him [Otto E. RöSSLER], he comes from Germany. He made that very clear for me. He said, "Of course, as a quantum physicist and as a chaos theoretician, I know that we need coherence, but knowing as a physicist of

time that time is permanently changing, we need coherences which are permanently thought anew and permanently reinvented in a new way." This also regards the interrelation of media making and media thinking. I deeply believe that there are no strict boundaries in between. There are porous skins in between the two activities, and the one is fruitful for the other. I deeply believe that every one of us know that the moment we write, hopefully an interesting text, we are changing the world we are writing about. These are the kind of interdependencies that are oscillating between making and thinking. This becomes even more relevant when it comes to films and to complex audio-visual constructions.

The time issue has been addressed a lot before. Perhaps what I tried to make clear in my presentation this morning, when I talked about prospective archaeology, was not entirely understood. I think this is also important for China and for the Chinese civilization. The deeper you go through the layers of time, you come to a construction of time and time-space relations, which is not only highly complex in the sense of layers, but which only works when you think them cross-culturally.

I could give a lecture now, which I definitely will not do, for example (after all our discussions on optics) on Ibn al-Haytham, an Arabian physicist and astronomer in the 10th and early 11th century. He was the guy who invented perspective. He already invented instruments, machines like the camera obscura, with which he could work with perspecti-

val constructions long before European modernity. Why? Because he was very interested in constructing an optical theory and optical practices, which was beyond the theological constructions with which he was confronted. He wanted an interplay between the outside material world and his inner world of thinking, of conceptualizing. And this is how he invented not only perspective, but also the idea of a neurological construction of the image. Ibn al-Haytham, one of the greatest thinkers and scientists in the world. His books on Optics were only written in Arabian language. To this day, 1000 years later, they are not yet translated completely. Imagine that, only four of his seven books on optics are translated so far into English, the rest is completely unknown in the world outside of the Arabian language. But he is one of the most brilliant thinkers of optics, of mathematics, he was already dealing with the structure of snowflakes, he was dealing with a mathematical calculation of the structure of crystals, of winds and of the most complex and dynamic issues. Of course, the people in the Renaissance, sitting in Venice, sitting in Padua, and in other places in Italy, they knew of these guys because they had access to their manuscripts in Venice, in Padua, and so on. But they never mentioned them. And so, it looks like this is an invention of European modernity. But in a deep-time perspective it is not. There are many different constellations of modernity in the layers of history and not one modernity, one origin. I don't like this notion of origin. Derivation – this is much better. This is a

much more complex construction. The origin, as we said already a little bit earlier, is a trap.

As soon as you try to find an origin and define it, you are constructing a deterministic system. I agree full-heartedly with what Thomas said. A media history or media archaeology that is constructed deterministically is a dead-end road and it doesn't bring us anywhere. And it only serves the big industry, some capitalists and some politicians, but definitely not artists and those who are interested in the lively aesthetics of media. This is, for me, an important point – no determination. Things develop in interdependencies, in complex connectivities. Thomas knows this much better than me because he was living already in England at that time. This is what we learned not only from the apparatus theoreticians of the French cinema tradition such as Baudry, Comolli, Pleynet, etc., but also from the very early cultural studies, they were very important for us. Raymond Williams, Richard Hoggart before Williams, Stephen Heath and all these people around the Birmingham School of cultural studies, partly influenced by the critical theory, the Frankfurt School, they were all thinking interdependently. One of the most important books in this tradition is by Raymond Williams, the main title was *Television* and then the subtitle, *Technology and Cultural Form*.<sup>34</sup> Of course, this implicates a rhetorical question because Raymond Williams made

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<sup>34</sup> Raymond Williams, *Television: Technology and Cultural Form* (London 1974).

absolutely clear, it's always both, cultural form and technology and none of the two was there before. So a non-deterministic interdependence or a change of cause and effect. And this is, I think, a very useful model.

The gender issue is a highly complex matter too. Because of time reasons, I cannot really go into it, but I think in flat time, not in deep-time history, you can also make a lot of wonderful investigations and projects about the interrelation of machinery, media machinery and female activities regarding experimental art. For example, video art as an experiment. Think about the work of VALIE EXPORT, the work of Ulrike Rosenbach in Germany, and many, many others. In Britain a book was just published on female video art<sup>35</sup> and there you can see how important this new technology was to generate a new, freer form of art within the feminist movement. This is the period of time around 1970. Of course, this research has not really been done yet when you go deeper in time. You can find a lot of interrelations for example between clock working in Switzerland and the construction of fine mechanical laces, which was mainly done by women. And there you have a beautiful interdependency with highly sophisticated forms of labour, which of course for our form of media archaeology is extremely relevant.

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35 Laura Leuzzi, Elaine Shemilt and Stephen Partridge (eds.), *EWVA European Women's Video Art in the 70s and 80s* (New Barnet 2019); Siegfried Zielinski wrote a foreword for the book.

**Question:** Thanks for your splendid talk, and this is just one simple question for both Professor Zielinski and Professor Elsaesser. I'm curious what you think about the connection between media archaeology and posthumanism propositions, because that is what I am focusing on for my recent research program which relates to contemporary performing art, including films, videos and installation art, and also the materiality of artistic materials. What is different is that the theories I refer to, like Karin Barad, are focusing on the same question, but some of the posthumanism positions deny the simple linear relations to establish an intra-action. So, I think we are pointing to the same question just from a different perspective. What I'm wondering is: What do you think of the idea to combine media archaeology with post-humanist propositions? Will there be any more potential research questions?

**SZ:** Very quickly, because it opens up a lot. I think most important is, again, in order to develop your project and your research, you really have to deal with concepts which work with an open concept of time. Such as Freeman Dyson, the great physicist, in his text *Time Without End*.<sup>36</sup> If you start as a physicist with this notion of time without limits, you can't land in a deterministic area. For me determinism and the radical anthropocentrism are very strongly interconnected.

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36 Freeman J. Dyson, *Time without end: Physics and biology in an open universe*. *Reviews of Modern Physics* 51/3 (1979), pp. 447–460.

So you need concepts which are open. It's good that you're starting this kind of research now, because it's still very unclear where it can go. This whole notion of posthumanism was only invented a few years ago. And of course, it should also include pre-humanity, and then you get a wide spectrum of possibilities through which you can go. The only advice I can give is, work with open concepts, with dynamic open concepts, and then you will develop your research in a wonderful way, I'm sure.

**TE:** I think you have to really distinguish between different forms of posthumanism, there are at least three that I can think of right away. One notion of posthumanism, it's the Kittlerian version, that says that the human and the technology have always gone hand in hand, there is absolutely no issue whatsoever, there'll be a smooth transition from one to the other, we'll become more and more like machines. But it'll be just another phase in our humanity.

The second one says, human beings are an accident, they should never have been. Evolution made a mistake. And if the dinosaurs hadn't disappeared, then small mammals wouldn't have crawled out of their holes and human beings wouldn't exist. So we should really have that perspective in our minds, that we are an accident of evolution. And therefore, you should think of our special way of being an accident, which is both one way of saying that we're very valuable because contingency and coincidence created us. But on the other hand, we

should be also humble in relation to the rest of creation, that we shouldn't think that we are the very top and therefore, if we're now being absorbed into something else, that it is part of being, that particular accident of creation.

And the third one is in relation to the Anthropocene, which has the peculiar way of saying, yes, we are now responsible for nature and creation, because we have such a massive influence on the planet. But the other thing is that, as far as the planet is concerned, what we do, even global warming, is completely irrelevant to the planet. If you take that other perspective: There have been ice ages, there have been meteorites. In other words, we are again, through the Anthropocene, placing ourselves in the centre by saying that we are responsible. But at the same time, we're also acknowledging that in the Earth perspective, the planet's perspective, whatever we do is irrelevant. The universe is indifferent to our activities. So you have to decide what kind of posthumanism you want to refer yourself to when you're looking at specific performances, films, artifacts, or practices.

**Hongfeng Tang:** I deeply appreciate what you two brought to us today.

# References

- Balsom, Erika**, *Exhibiting Cinema in Contemporary Art* (Amsterdam: Amsterdam University Press, 2013).
- Barthes, Roland**, En sortant du cinéma. *Communications* 23 (1975), pp. 104–107.
- Baudry, Jean-Louis**, Effets idéologiques produits par l'appareil de base. *Cinématique* 7/8 (1970), pp. 1–8.
- Bazin, André**, *Qu'est-ce que le cinéma ? 1. Ontologie et Langage* (Paris: Éditions du Cerf, 1958).
- Bazin, A.**, The Ontology of the Photographic Image. *Film Quarterly* 13/4 (1960), pp. 4–9.
- Berger, John**, *Ways of Seeing* (London: Penguin, 1972).
- Brighton Film Review**, journal by the Film Society at the University of Sussex, later titled *Monogram*.
- Crary, Jonathan**, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: The MIT Press, 1990).
- Debord, Guy**, *La société du Spectacle* (Paris: Buchet-Chastel, 1967).
- Dyson, Freeman J.**, Time without end: Physics and biology in an open universe. *Reviews of Modern Physics* 51/3 (1979), pp. 447–460.
- Elsaesser, Thomas (ed.)**, *Early Cinema: Space, Frame, Narrative* (London: BFI Publishing, 1990).
- Elsaesser, T.**, *European Cinema. Face to Face with Hollywood* (Amsterdam: Amsterdam University Press, 2005).
- Elsaesser, T.**, *Filmgeschichte und frühes Kino. Archäologie eines Medienwandels* (Munich: Edition Text + Kritik, 2002).
- Elsaesser, T.**, *Film History as Media Archaeology: Tracking Digital Cinema* (Amsterdam: Amsterdam University Press, 2016).
- Elsaesser, T.**, Making the World Superfluous: An Interview With Harun Farocki, in: *Harun Farocki. Working the Sightlines*, ed. Thomas Elsaesser (Amsterdam: Amsterdam University Press, 2004), pp. 177–190.
- Elsaesser, T.**, "The Cinema: In-Between the Animated and the Automated," lecture at Whitney Humanities Center, Yale University, September 25, 2018; <https://filmstudies.yale.edu/event/thomas-elsaesser-cinema-between-animated-and-automated>, access: December 23, 2020.
- Elsaesser, T.**, The New Film History. *Sight and Sound* 35/4, pp. 246–252.
- Elsaesser, T.**, *The Persistence of Hollywood* (New York: Routledge, 2012).
- Flusser, Vilém**, letter to David Flusser (November 25, 1990), facsimile print in Siegfried Zielinski, *Entwerfen und Entbergen. Aspekte einer Genealogie der Projektion*. International Flusser Lectures (Cologne: Walther König 2010), p. 4.
- Hagener Malte**, *Moving Forward, Looking Back. The European Avant-Garde and the invention of film culture 1919–1939* (Amsterdam: Amsterdam University Press, 2007).
- Hagener, M.**, Johann N. Schmidt and Michael Wedel, *Die Spur durch den Spiegel. Der Film in der Kultur der Moderne* (Berlin: Bertz und Fischer, 2004).
- Hegel, G.W.F.**, Jenaer Realphilosophie, in: *Frühe politische Systeme*, ed. Gerhard Göhler (Frankfurt/Main: Ullstein, 1974), pp. 201–289.

**von Helmholtz, Hermann**, *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (Braunschweig: Vieweg, 1863).

**von Helmholtz, H.**, *Handbuch der Physiologischen Optik* (Leipzig: Voss, 1867).

**Huhtamo, Erkki, and Jussi Parikka (eds.)**, *Media Archaeology: Approaches, Applications and Implications* (Berkeley et al.: University of California Press, 2011).

**Irrgang, Daniel, and Florian Hadler (eds.)**, *Zur Genealogie des MedienDenkens* (Berlin: Kulturverlag Kadmos, 2017).

**Kooijman, Jaap, Patricia Pisters and Wanda Strauven**, *Mind the Screen. Media Concepts According to Thomas Elsaesser* (Amsterdam: Amsterdam University Press, 2008).

**Leuzzi, Laura, Elaine Shemilt and Stephen Partridge (eds.)**, *EWVA European Women's Video Art in the 70s and 80s* (New Barnet: John Libbey Publishing, 2019).

**Malraux, André**, *Les Voix du Silence* (Paris: Gallimard, 1951).

**Malraux, A.**, *Psychologie de l'Art* (Gent: Albert Skira, 1947).

**Panofsky, Erwin**, Die Perspektive als "symbolische Form", in: *Vorträge der Bibliothek Warburg 192/25*, ed. Fritz Saxl (Leipzig: Teubner, 1927), pp. 258–330.

**Schiller, Friedrich**, *Der Geisterseher. Aus den Memoiren des Grafen von O\*\** (Leipzig: Göschen, 1789).

**de Valck, Marijke, and Malte Hagener**, *Cinephilia. Movies, Love and Memory* (Amsterdam: Amsterdam University Press, 2005).

**Williams, Raymond**, *Television: Technology and Cultural Form* (London: Collins, 1974).

**Zielinski, Siegfried**, *Audiovisions: Cinema and Television as Entr'actes in History* (Amsterdam: Amsterdam University Press, 1999); German edition: *Audiovisionen. Kino und Fernsehen als Zwischenspiele in der Geschichte* (Reinbek/Hamburg: Rowohlt, 1989).