What is Media Archaeology?

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Introduction: Cartographies of the Old and the New

Steam punk subculture seems to be emblematic of important cultural desires circulating at the moment, in the midst of our high-technology culture. Expressed in various forms ranging from stylized nineteenth-century-inspired garments to weird inventions that mix the Victorian age with 21st-century themes, as well as a strong Do-It-Yourself (DIY) spirit, the steam punk style is much more than a quirky bunch of people who wear corsets while building mad scientific experiments such as a home-made Jacob's ladder. In a transdisciplinary spirit, the *Steampunk Magazine* describes itself as 'a journal of fashion, music, misapplied technology and chaos. And fiction'.[1] It is a bag of mixed interests and hobbyist activities, as well as curiosity for technological knowledge that does not fall in with the usual sublimated way of approaching science and technology through simple linear progress myths that see old technology as just obsolete and uninteresting.

As a spin-off from cyberpunk science fiction, steampunk (hats off to *The Difference Engine* novel from 1990, and a range of other literary products and computer games) imagines in new ways the steam-engined machine worlds of the Victorian era which marked the birth of modern technological culture, as well as the punk-influenced spirit of tinkering, *bricolage* and fascination with mad science, experimental technologies and the curiosity cabinets that such worlds offer. Indeed, steam punk occupies various worlds at the same time: combining the spirit of open source and hacker cultures that is part of the current punkish way of DIY in software and hardware cultures with a strong historical curiosity for earlier phases of intensive technologization and wide participation in actual production processes.[2] It is not interested in coming up with universalizing models for technological

progress, but in experimenting with alternatives, in quirky ideas, in excavating novel paths that fall outside the mainstream.[3]

Steam punk is also a good symbol for the media-archaeological spirit of thinking the new and the old in parallel lines, and cultivating enthusiasm for media, technology and science through aesthetics, politics and other fields of critical inquiry. Even if at the risk of postmodern nostalgia (see Jameson 1989) or celebrating exactly what has been lost in the midst of increasingly closed black-box consumer mediascapes, steam punk is branded by an active tinkerer spirit. In a similar way to the steam punk DIY spirit, media archaeology has been keen to focus on the nineteenth century as a foundation stone of modernity in terms of science, technology and the birth of media capitalism. Media archaeology has been interested in excavating the past in order to understand the present and the future. Yet it is not only interested in writing historical narratives. It has always been quite theoretically informed, open to recent cultural theoretical discussions and borrows as happily from film studies and media arts as it does from the historical set of methodologies. Media archaeology has never been only a pure academic endeavour, but, from its early phases in the 1980s and 1990s, has also been a field in which media artists have been able to use themes, ideas and inspiration from past media too in order to investigate what the newness in 'new media' means.

This book is called *What is Media Archaeology?* and it sets out to elaborate the potentials of the media-archaeological method in digital culture research. As such, it is not an archaeology *of* digital culture. We *do* need many more critical archaeologies of post-World War II cultures of computing; software and design; the institutionalization and commercialization of software production as well as open source; the military-industrial complex behind the emergence of network culture; the formations of creative labour and work inherently connected to new forms of production; alternative media that emerged from open source as well as hacktivists engaging in hardware hacking and circuit bending – but this book does not exclusively focus on such topics. (On archaeologies of software, see Alt 2011; Wardrip-Fruin 2011; Manovich 2001). Instead, it offers an insight into *how to think media archaeologically* in contemporary culture, and maps the various theories, methods and ideas that give us guidance on how to do that. Media archaeology is introduced as a way to investigate the new media cultures through insights from past new media, often with an emphasis on the forgotten, the quirky, the non-obvious apparatuses, practices and inventions. In addition, as argued in this book, it is also a way to analyse the regimes of memory and creative practices in

media culture – both theoretical and artistic. Media archaeology sees media cultures as sedimented and layered, a fold of time and materiality where the past might be suddenly discovered anew, and the new technologies grow obsolete increasingly fast.

It is easy to see how media archaeology fits into a wider cultural situation where vintage is considered better than the new, Super-8 and 8-bit sounds are objects of not only nostalgia but also revival and retrocultures seem to be as natural a part of the digital-culture landscape as high-definition screen technology and super-fast broadband. Death of media is mourned: the discontinuation of production of the Technics 1200 vinyl turntable (1972–2010), or the Sony Walkman (1978–2010); lost formats from magnetic tapes to floppy disks of various sizes have their own preservation enthusiasts; abandonware like games from the early 1990s is living a zombie life on the Internet; and media consumption practices are becoming retro too – for instance, the recently emerged vinyl listening clubs in London where the whole of the vinyl record is played non-interrupted in a nearly religiously meditative retro-fashion.[4] Partly this can be explained by the personal attachment that the current young consuming middle-class (now in their 30s–40s) who were the first generation to grow up in the midst of personal computers and gaming, handheld devices, Walkmans and other 1970s and 1980s electronics, have to such popular culture of their youth. Donkey Kong, Pac Man and Tetris still have a special place in several hearts (and hands) and some of the reuses and communities – for example, around cassettes – has found a new life with the Internet and on smartphones and i-Pads (see Cramer 2010; Suominen 2008). Tetris-inspired furniture Tat-ris, by the designer Gaenkoh, captures some of the affective nostalgia, as do music rewirings through the circuit-bending activities of the Modified Toy Orchestra (www.modifiedtoyorchestra.com), in which you are not sure whether you are dealing with the old or the new in music technologies.

That *new media remediates old media* (Bolter and Grusin 1999) seems an intuitive way to understand this cultural situation in which notions of old and new at times become indistinct. New media might be here and slowly changing our user habits, but old media never left us. They are continuously remediated, resurfacing, finding new uses, contexts, adaptations. In the midst of talk of 'dead media' by such writers as Bruce Sterling, it was clear that a lot of dead media were actually zombie-media: living deads, that found an afterlife in new contexts, new hands, new screens and machines. In the globalized information cultures so often described in terms of speeding up and temporalities surpassing those of our human perceptional possibilities, a fascination also with the past seems to be emerging.

Image 1.1 The Vintage Internet from the 2010 marketing campaign. Maximidia Vintage Ads. Reproduced by permission of MOMA Propaganda.

So perhaps this is a book of zombies, of the living dead of media culture, which specifically touches on media archaeology as a theory and methodology of digital media culture. This book offers both an outline of the crucial debates within media archaeology and cognate disciplines of academic and media artistic interest and some new directions in which to develop media archaeology as a set of theories, methods and ways to understand the mediatization of cultures of memory as well as the dynamics of old and new media. It offers insights into new media and old media in parallel lines and extends into discussions concerning the various – at times contradictory and competing – strands of media-archaeological investigations. Where do you start when you begin thinking media archaeologically? Do you start with past media, like a 'proper' historian? Or from our own current world of media devices, software, platforms, networks, social media, plasma screens and such, like a 'proper' analyst of digital culture would? The proposition of this book is that you start in the middle – from the entanglement of past and present, and accept the complexity this decision brings with it to any analysis of modern media culture. In this context, this is a book on the pasts and futures, the past-futures and future-pasts, as well as parallel sidelines of media archaeology. It maps the key contexts from which this brand of media theory and methodology emerged, but also argues that it needs continuously to renew itself in relation to emerging questions concerning digital culture, memory and technical media.

Media archaeology – multiple backgrounds

Media archaeology has stemmed from various directions. These include inspiration offered by the studies in archaeologies of power and knowledge of Michel Foucault (1926–84), the early excavations into the rubbles of modernity by Walter Benjamin (1892–1940), New Film History in the 1980s, as well as the various studies that, since the 1990s, have sought to understand digital and software cultures with the help of the past, a layered 'unconscious' of technical media culture. Yet, we need to be prepared to refresh media archaeology itself. So far, outside the collection *Media Archaeology* (Huhtamo and Parikka 2011), even summaries of theoretical work and mapping of crucial debates have been missing (however, forthcoming is Strauven 2012). But in addition to such an important task of mapping its multiple histories, we also need to develop it as a methodology for critical media studies as well as think through its ties with archival institutions. One of the crucial themes, as we will see later in the book, is

to outline the centrality of the archive for media studies as has been done for philosophy and cultural theory (see, for instance, Derrida 1996; Didi-Huberman and Ebeling 2007).

However, we need to identify some key points from media-archaeological research – themes that have offered centres of gravity for such sets of theories and methods. Articulated by a range of theorists such as Erkki Huhtamo, Siegfried Zielinski, Thomas Elsaesser, Friedrich Kittler, Anne Friedberg, Tom Gunning, Lev Manovich and Laurent Mannoni, as well as several even earlier writers such as Walter Benjamin, Siegfried Giedion (1888–1968), Aby Warburg (1866–1929), Marshall McLuhan (1911–80) and others, the archaeological rumblings in media pasts and presents in parallel lines have been branded by multiplicity.

Traditionally, two theorists have stood out: Michel Foucault and Friedrich A. Kittler. Foucault's contribution to the archaeology of knowledge and culture was to emphasize it as a methodology for excavating *conditions of existence*. Archaeology here means digging into the background reasons why a certain object, statement, discourse or, for instance in our case, media apparatus or use habit is able to be born and be picked up and sustain itself in a cultural situation. Kittler builds on Foucault's ideas and has demanded a more media technological understanding of such archaeological work: such conditions of existence not only are discursive, or institutional, but relate to media networks, as well as scientific discoveries. Kittler wanted to look at technical media in the way Foucault was reading archives of books and written documents. What if we start to read media technology in the same way that Foucault exposed cultural practices and discourses to an analysis of how they were born and made possible in certain settings? Of course, such archaeological questions are closely related to what Foucault later started to call 'genealogy'. Here, the emphasis was more on questions of 'descent' and critique of origins as found in historical analysis of his time, and it spurred a lot of research that was keen to look for neglected genealogies and minor traits of history: histories of women, perversions, madness and so forth – counter-histories. In this manner, a lot of media-archaeologically tuned research has been in writing counter-histories to the mainstream media history, and looking for an alternative way to understand how we came to the media cultural situation of our current digital world. It is for media archaeologists as it was for Foucault: all archaeological excavations into the past are meant to elaborate our current situation.

Foucault and Kittler are just two examples of theorists who have had a crucial impact on media archaeology theory. Any attempt to impose unity on the canon of media-archaeological works, of course,

risks dismissing the heterogeneity at the core of this enterprise, but even with that threat in mind one could claim that it has been successful in certain important areas. Key themes and contexts have included: (1) modernity, (2) cinema, (3) histories of the present, and (4) alternative histories.[5] Elaborating these briefly below gives a tentative insight into what media archaeology *has been*. The subsequent chapters address these themes in more detail, and also gradually point towards questions of what media archaeology *is becoming*.

(1) Modernity

Modernity itself as a process of technological, social and economic (capitalism) components has proved to be a key 'turning point' in various media-archaeological theories. These range from the German cultural theorist Walter Benjamin's early twentieth-century investigations into new forms of sensation emerging from modern urban settings and media technologies such as cinema, photography and the telephone (2008) to such key studies of more recent media theory as Anne Friedberg's (1993) *Window Shopping*, which investigated new media technologies, gender and consumerism from the perspective of the lively debates on the postmodern. Various studies raised the questions of what it means to be modern, and how new scientific and technological innovations contribute to the changing cultural landscape and even our basic ways of being in the world: seeing, hearing, thinking and feeling.

The nineteenth and early twentieth centuries especially have become the key excavation grounds for such analyses, which aim to establish the centrality of modernity for the grounding of contemporary media experiences and industries. Modernity can hence be seen as an era that is part of an emergence of a new sense of history as well, with such institutionalized forms as museums offering a new presence for the past (and faraway places as in anthropological colonialism, or alternative life worlds as in animal and natural history collections), and new technological, urban environments acting as conduits for altering structures of perception, experience of temporality and memory, as well as new types of rationalization in the midst of emerging forms of capitalism and bureaucracy. In addition to Benjamin and Friedberg, key studies include – just to mention a few examples – Jonathan Crary's (1990, 1999) writings about observation and attention as modern 'techniques of the subject'. From an earlier perspective, in the midst of such changes, one can mention *Panorama of the 19th Century* (1977 [1938]) by Dolf Sternberger (1907–89) and *Mechanization Takes Command* (1948) by Siegfried Giedion.

The latter addressed the birth of mechanical culture from labour to slaughterhouses, kitchen appliances to bathing and, in the words of Paul DeMarinis (2010: 211), 'is a sourcebook of problems, solutions, and the solutions that became problems'. In addition to these, one can point to art historical studies such as the cultural historical outlining of new forms of visuality by Aby Warburg's *Atlas-Mnemosyne* project and, in general, his investigations into configurations of the image (see Michaud 2007). Sternberger, Giedion and Warburg are some good examples of early contemporary theorists of modernity and the emerging technological media culture.

Indeed, what has to be noted is that already then we can discover how early art and cultural historians such as Jacob Burckhardt influenced Warburg, and how these early fields of 'image science' had, through a canon of art historical writers such as Erwin Panofsky (1892–1968), an influence on the historical discourses concerning art and media in the 1980s and 1990s. Hence, it is no wonder that writers such as Lev Manovich (2001) have argued for a historical connection between early avant-garde (paying special attention to 1920s Soviet filmmakers) and contemporary digital aesthetics. Forms of montage, as well as principles from the 1920s New Vision movement of artists such as Moholy-Nagy (1895–1946), Rodchenko (1891–1956) and Vertov (1896–1954), can be found implicitly at the core of computer imaging and art practices. In another context, for such key theorists as Friedrich Kittler, not only modernity but also modernism as a techno-artistic articulation of historical development, acts as a key figure through which, one could say, we were given the vocabulary of our technical media culture. Such a presence of modernity/modernism was evident in Kittler's 'archaeology of the present' that also accounts for 'data storage, transmission, and calculation in technological media' (Kittler 1990: 369).

(2) Cinema

As a key technology of modernity, cinema has been at the core of media-archaeological theories. The idea of 'archaeology' of the medium appeared already in the title of *Archaeology of the Cinema* (1965) by C. W. Ceram (1915–72). Ceram was known for his various writings on archaeology (in the original sense of the discipline and term) but also for his past with the propaganda troops in Hitler's Germany. Ceram's leap from archaeological discipline to cinema archaeology followed, however, a method was that still very linear and, despite mapping pre-cinematic technologies, was very keen to focus on the birth of the 'proper' cinematic form from 1895 onwards.

Much of the modern theorization started off from the New Film History wave of film studies from the 1970s and, especially, the 1980s. It established new perspectives on early cinema and the development of related screen and viewing technologies and practices from: (1) archival work and discovery of new films and material (often mentioned is the by-now classic 34th International Federation of Film Archives – FIAF, www.fiafnet.org – conference in Brighton in 1978 where a significant number of films from 1900 to 1906 were screened for an audience of film scholars); and (2) the cinema theories concerning spectatorship, power and gender (such as Mulvey 1975 and the psychoanalytically loaded theories concerning the apparatus of cinema and ideology of Jean-Louis Baudry, Jean-Louis Comolli and Christian Metz). These two strands – theory and new historical work – were, from early on, closely connected too. A lot of research on early cinema, and its distinct role as a specific form of sensation, emerged especially through the work of Tom Gunning and the idea of 'attraction'. In 'The Cinema of Attractions: Early Film, its Spectator and the Avant-Garde' (first version in 1986), Gunning outlined this concept of early cinema and its key components in the non-narrative, exhibitionist quality of the image that drew on 'cinematic manipulation' such as close-ups, slow motion, reverse motion, substitution and multiple exposure, as Gunning (1990: 57–8) outlines. Gunning and related perspectives drew directly from new archival material and established the idea that we should also take pre-cinematic apparatuses and contexts seriously. These were not only a 'warm-up' for the main act of cinema, but deserve attention in their own right. (For critique of Gunning, see, e.g., Musser 2006a and 2006b).

Hence, scholars started to talk about cinema and television – the prime media industries and aesthetics of the twentieth century – only as *entr'actes*, not the final act, in a wider field of visual and media-scapes (Zielinski 1999). A lot of emphasis was placed on mapping the multiplicity of technologies of producing and viewing images, and projects from camera obscuras to magic lanterns and the real burst of visual culture from the eighteenth and nineteenth centuries – with phantasmagorias, panoramas, daguerreotypes, thaumatropes, anorthoscopes, phenakistoscopes, praxinoscopes, mutoscopes and stereoscopes. Suddenly, in the light of such massive historical studies as Laurent Mannoni's *The Great Art of Light and Shadow* (2000), which bore the subtitle *Archaeology of the Cinema*, the better-known key inventions such as cinema and photography became merely one stream of innovation.

In this context of research, film scholars turned to emphasizing such cinematic technologies not only as 'primitive' forms of what was

to come – the classic Hollywood form for film fiction that seemed to be the norm at least until the 1970s emergence of 'New Hollywood' – but as alternative practices of cinematic experience, mediascape and industry. The notion of the spectator widely debated in the 1970s, and later theories concerning the apparatus and its role in the fields of power and ideology, became historicized. Simultaneously modes of sensation and perception became embedded in an analytical view that encompassed multiple, non-linear histories. Instead of in terms of a rupture, cinema was to be analysed through the various *others* of mainstream cinema form that were constantly suppressed in teleological perspectives (Gaudreault 2006: 87; Zielinski 1999).

As Thomas Elsaesser (2004) points out, the media-archaeological spirit at the core of New Film History feeds into a further set of toolboxes for digital culture research whereby the current debates concerning convergence and the digital can actually be complexified themselves with the increasing understanding of early and precinematic visual cultures. In Elsaesser's insightful contextualization of 'New Film History as Media Archaeology', the turn to the digital becomes itself an epistemological switch, which can be used to investigate ruptures and continuities, intermedial relations and parallel histories. Through the lenses of the digital, we start to see old media anew as well. Similarly, the multiple worlds of visual culture of the nineteenth century, with its 'vaudeville, panoramas, dioramas, stereoscopic home entertainment, Hale's tours and world fairs', as Elsaesser (2004: 80) lists them, are a further good reminder of the dangers of homogenization – such as the myth of convergence as the sole driving force of media evolution – and point towards the various ways in which connections and ruptures emerge, and how some characteristics, such as 'attraction' as a mode of sensation, work across media from early cinema to our culture of computer games, revitalized interest in 3D, and other spectacles.

(3) Histories of the present

In the midst of the emphasis on the audiovisual and the (pre- and post-)cinematic, and the methodological emphasis on alternative paths and transdisciplinary regimes of knowledge, media-archaeological research adopted the idea – familiar from Foucault – that archaeology is always, implicitly or explicitly, about the present: what is our present moment in its objects, discourses and practices, and how did it come to be perceived as reality? The hype surrounding the 'newness' of the digital culture of the 1980s and 1990s was contextualized in many ways that complexified the way new media were seen as 'new'.

Hence, instead of the myth of linear progress, studies such as Carolyn Marvin's (1988) pointed out that old technologies had also once been new – and investigated the telegraph, the telephone, and electricity and light as media phenomena that were embedded in the aura of newness in the nineteenth century, and how they were part of a wider rearticulation of social ties, expert knowledge and professionality, and new high-tech spectacles integrated as part of everyday life. Newness is always a very relative concept, and a focus on technical qualities such as 'speed, capacity, and performance' (Marvin 1988: 4) is secondary to the social issues through which technical efficiencies are mobilized as negotiations between audiences: experts and amateurs, insiders and outsiders, users and non-users (1988: 4). One is, indeed, allowed to conceive of new media and new technologies already in the nineteenth century, or even earlier, as a more recent title suggests: *New Media, 1740–1915* (Gitelman and Pingree 2003).

The relativity of the new is taken as a starting point in works by perhaps the two most influential media archaeologists. Arriving at the concept from slightly different directions, Erkki Huhtamo's and Siegfried Zielinski's works are emblematic of the formation of the research field, and both have been important in rethinking the temporal structures of newness and opening up, through a variety of historical apparatuses, the question of *what the new is* and how we should incorporate historical knowledge into thinking about current and future media.

Huhtamo's work has centred mostly on the idea of *topoi* (plural of *topos*): topics of media culture that are recurring, cyclical phenomena and discourses that circulate. Arriving at media-archaeological theory from cultural historical training and the 1980s critique of positivist and chronological historical writing, Huhtamo (1997: 221) maps media archaeology as part of the understanding of history as a 'multi-layered construction' which, in media-related work, had been developed early on by Gunning, Zielinski, Marvin, Avital Ronell, Susan J. Douglas, Lynn Spigel, Cecilia Ticchi, William Boddy and others. Borrowing the key concept of *topoi* from a curious direction – namely, from the 1948 historical study *Europäische Literatur und lateinisches Mittelalter* by classicist Ernst Robert Curtius (1886–1956), Huhtamo develops his own brand of media archaeology through the idea of *commonplaces* – the aforementioned motifs that are recurring – whether as more general cultural phenomena like the discourse concerning immersive environments which was not unique to the 1990s virtual reality boom, or in more tactical uses, as in marketing.

Thinking cyclically has been one media-archaeological strategy for critiquing the hegemony of the new. Siegfried Zielinski (1999)

connects the compulsory newness to what he calls the *psychopathia medialis* of our current capitalist condition. His solution is to promote heterogeneity of arts and media environments through the concept of variantology. Zielinski's development of media archaeology as research into the deep time of media – modes of hearing, seeing and sensing in general – is another way of developing an alternative temporality that moves away from a hegemonic linearity that demands that we should see time and history as straight lines that work towards improvement and something better. In such linear perspectives, the past is only a lost present. Instead, Zielinski promotes a more paleontological time for media: a time of development that 'does not follow a divine plan', and he insists that 'the history of the media is not the product of predictable and necessary advance from primitive to the complex apparatus' (Zielinski 2006a: 7).

We can see how such ideas concerning dynamic, complex history cultures of media are at the core of how we should think in terms of current media environments as well – this is evident from the involvement of such figures as Huhtamo and Zielinski among a number of others in arts institutions and festivals in which media-archaeological work, and the ethos of creativity have been directly channelled into creative practice. In the words of Zielinski (2006a: 11), 'The goal is to uncover dynamic moments in the media-archaeological record that abound and revel in heterogeneity and, in this way, to enter into a relationship of tension with the various present-day moments, relativize them, and render them more decisive.'

Several artists have engaged in similar ways of thinking as well. Paul DeMarinis, Zoe Beloff, Bernie Lubell, Masaki Fujihata, Catherine Richards, Gebhard Sengmüller, Julien Maire and David Link have been among the creative practitioners who have taken a keen interest in looking at how to do media archaeology – and to rewiring temporality – with practical, artistic means. In addition to such earlier pioneers, learning about and meeting other artists and practitioners – such as Garnet Hertz, Shintaro Miyazaki, Sarah Angliss, Aleksander Kolkowski, Rosa Menkman, Brendan Howell, Martin Howse, Elizabeth Skadden and, for example, the artist-curators Kristoffer Gansing and Linda Hilfling who were the organizers of the Art of the Overhead Project event series – influenced this book and the way in which media archaeology is being articulated here.

(4) Alternative histories

What should have become clear by now is that, while media archaeology writes histories of the present, it is also looking for *alternative*

presents and pasts – and futures. Within the context of new theories and histories of cinema, one of the key driving ideas that feeds into media archaeology is something that Elsaesser (2004: 81) attributes to Noël Burch: the idea of 'it could have been otherwise'. What the meticulous assessment of film and cinema produced were not only film histories, but histories of audiovisual culture in which film, understood in the mainstream sense, was only one possible end result from the various strands, streams and ideas that formed the (audio)visual culture of, for instance, the mid and late nineteenth century. This reminds of Foucault's genealogical method of questioning simple origins and teleological and pre-determined ways of understanding (media) cultural change.

The media-archaeological perspectives meant looking at the pre-cinematic technologies and practices as one resource for rethinking our current visual and media field. This includes meticulous research into non-mainstream technological and mediatic apparatuses, and increasingly opening up contemporary technologies through new kinds of genealogies – an important task especially since the 1980s' and 1990s' hype around the supposed newness of digital technologies, which presented themselves in various policy, marketing and public discourses as inevitable improvements and novelties. The discourses of 1990s' new informational capitalism were in a way challenged by a range of genealogies of high-tech media in which the new was tied to the old in terms of discourses of newness, convergence, interaction, immersion, virtuality, materiality, etc. (See, for example, Manovich 2001; Grau 2003; Lyons and Plunkett 2007; Huhtamo 1997 and 2012; Rabinovitz and Geil 2004.) Media archaeology stepped in to challenge the strategic amnesia of digital culture.

In this sense, it was more in the spirit of Foucault's genealogical theories, instead of his archaeology of knowledge, where inspiration was sought. New cultural histories (see Burke 2004) were shifting their interest to writing about representations, constructions, practices and histories of the previously neglected subjects (women, children, gays, the body, etc.), and Foucault's genealogy was one theoretical articulation of how to think historically but avoid the idea that there are such things as simple origins. Instead, writes Foucault (1998: 374), it is a matter of preserving the heterogeneity in history and

> identify[ing] the accidents, the minute deviations – or conversely, the complete reversals – the errors, the false appraisals, and the faulty calculations that gave birth to those things which continue to exist or have value for us; it is to discover that truth or being lies not at the root of what we know and what we are but the exteriority of accidents.

Indeed, media-archaeological research embodied an interest in and a need for new ways of understanding media cultures outside the mainstream. It also expanded media studies outside analyses of entertainment media. Hence, another key trend in terms of alternative histories was the horizontal widening of media-historical research – something that Elsaesser has summed up as an interest in the perverse S/M-histories of cinema and media – not necessarily sexual perversions but *epistemological perversions*: a non-mainstream approach to media cultural innovations and applications. To paraphrase Elsaesser (2006: 17), S/M perversions of film and media history include **s**cience and **m**edicine, **s**urveillance and the **m**ilitary, **s**ensory-**m**otor coordination, and **G**MS and M**MS** in reference to the mobile communication cultures that expand how cinema and the visual are taking new forms.[6] Indeed, what characterizes such a take is the bravely transdisciplinary nature of the methodology in which the alternative histories for media cultures are sought somewhere on the fuzzy borders of art/science/technology.

Media archaeology – act two

The themes that are outlined above are not exhaustive in any way, and the amount of work that is in spirit, even if not always explicitly in name, media-archaeological is vast.[7] Hence, I tried to show only some ideas that are running through the body of work and the context from which this book stems. Having said that, it is the intention of this book on media archaeology not only to offer an overview of the 'has-beens' and past themes but to articulate how we are able to use – and reuse, remix, reshuffle – media-archaeological methods and theories, as well as the research ethos, as something that is still an exciting and fresh way to tackle past and present media cultures in parallel lines. We need a 'second act' for grounding our new theories and practical ideas about media archaeology.

What this book develops are insights into how arts and technology can work in relation to cultural theory – and articulate history, practice and theory in a fruitful mash-up. In a similar sense to how media art histories have been interested in institutions, practices and ideas that articulate practical laboratories, whether for artistic or technological creation – there is a long history of science, technology and art collaborations which is the focus of, for instance, media art histories conferences and publications (www.mediaarthistory.org/) – I propose as acute a need for *concept labs*, where we twist, experiment and open up concepts, as in circuit bending. Similarly, we can ask what

in addition to such labs are the key places where media archaeology takes place? One obvious answer is the archive – one key institutional 'site' of memory with an intertwined history with modernity and the birth of the state apparatus, but which now is increasingly being rearticulated less as a *place* of history, memory and power, and more as a dynamic and temporal network, a software environment, and a social platform for memory – but also for remixing. The archive is becoming a key concept for understanding digital media culture, and its practices are worthy of investigation in the context of media archaeology as well. This means bringing media archaeology into proximity with the archive as a key site of digital software culture, as well as – through that agenda – bringing media studies ideas into proximity with key non-academic institutions involved in cultural heritage in the digital age.[8] As such, this has affinities with the recent interest in *digital humanities*.

Hence, I approach media archaeology historically but also as a travelling theory, mobile concepts and shifting institutional affiliations. Borrowing loosely from Mieke Bal (2002), this refers to how media archaeology has historically resided in between academic departments (media studies, media arts, film studies, history) and arts institutions and practices. It has never really found one institutional home, and even if it is important to avoid romanticizing nomadism, this still is something that also can be turned to an advantage in the sense of promoting dynamics of concept creation and knowledge exchange. Media archaeology is a travelling discipline, based on a mobile set of concepts. Jumping aboard the travels of media archaeology, this book is cartographic: it maps media archaeology, and, by doing so, also creates one possible way to understand the place of media archaeology, history and media theory in contemporary digital culture – and to understand digital culture media archaeologically.

This cartographic task aims to think anew the place of time and history in our digital culture. This does not mean returning to such accounts that argue memory as a human capacity for remembering, retrieval or trauma, but focusing on a media-technologically informed understanding of the networks in which memory becomes partly an issue of technical media – a theme underlined by German media theorists such as Wolfgang Ernst and, to an extent, Friedrich Kittler. Indeed, it is increasingly the non-visual that media archaeologists are turning their focus on – whether through archaeologies of the technological present in, for example, opening up the layers of consumer software and hardware and, for example, the electromagnetic spectrum surrounding our WiFi, Bluetooth, UMTS, EDGE, HSPA, GSM and GPS traffic,[9] or repurposing dead media with a DIY spirit

and methods[10] and using media archaeology as an artistic methodology and hence transporting it from investigation of texts to material culture as well.

Structure

This book is divided into seven chapters in which I elaborate new directions and ideas in relation to the existing media-archaeological body of theory and research as well as practice. The chapters have been chosen to illuminate key fields of media-archaeological research from film to software, from genealogies of imaginary media to material media theory. In addition, chapters on archive and creative practice are included to address how media archaeology relates to the cultural heritage institutions in their archival work, and to creative practice, where the past becomes a resource for fresh ideas.

The order of the chapters loosely follows the way media archaeology has evolved. The earlier chapters are about those research directions which have been more clearly articulated and written about during the past years: for instance, film-studies-oriented media archaeology, imaginary media and German media theory. The later chapters address slightly more neglected topics, such as media theory of the archive and media archaeology as an artistic method. It is, of course, an exaggeration to say media-archaeological art has not been written about, but the chapter takes a new perspective and illuminates recent, more software-oriented, art as well. In the conclusions, the politics of the materiality and temporality of media archaeology is elaborated.

The next chapter, chapter 2, is dedicated to some of the film-studies contexts from which media archaeology has emerged. Discussing New Film History, the debates of media archaeology in film studies since the 1980s and the more recent turn towards non-visual and more affect- and multimodal-based ideas concerning media histories, the chapter entails both a historical and a theoretical understanding of how to think media pasts intertwined with contemporary media cultures of, for example, gaming. Hence, it already points towards the regime of algorithmic, digital culture as important for a wider media-archaeological mapping. Here the idea of the cultural and historical nature of senses is investigated. One of the key concepts emerging from the chapter is 'epistemic rupture' as a methodology for media archaeology, as suggested by Thomas Elsaesser.

The third chapter is called 'Imaginary media: mapping weird objects' and taps into the discourse of imagined media. Imaginary-media

research has been an integral part of the media-archaeological discourse, and is emblematic of the drive to find important ideas and contexts outside actually existing technologies. It also expands towards regimes of the supernatural and other worlds significant from a cultural historical perspective, while promoting an argument for a very material reading of imaginary media in technical modernity.

The fourth chapter continues this materialist drive. It introduces important German influences on media archaeology, not least Friedrich A. Kittler whose works since the 1980s have had a significant impact in both the Germanic and Anglo-American media theoretical circles. His brand of 'media materialism' can also be connected to a range of other thinkers such as Bernhard Siegert, Claus Pias, Cornelia Vissman, Wolfgang Hagen and also Wolfgang Ernst, Professor of Media Studies at Humboldt University, who has specifically insisted on calling his continuation of Foucault's ideas 'media archaeology'.

In chapter 5, we focus on noise and provide an alternative reading of media history. The chapter offers a case study of how media archaeology can work with empirical material, and elaborates in practice the idea of offering alternative viewpoints to media history. How might communication media look from the point of view of non-communication, disturbance and noise? As a media-archaeological excavation of what was left out and what has been considered the anomalous, in archaeologies of the network society and digital culture we need to look at the underbelly of communication. This takes us to mapping non-communication, spam, noise, interference and disconnection as crucial ways to understand the politics and tactics of technical media cultures from telegraphy to the Internet.

A lot of media-archaeological writings rely on the archive – but it has been quite an undertheorized theme for media archaeologists. Hence, chapter 6 is a mapping of how we need to rethink this crucial philosophical and practical context as part of software cultures. This takes us to remarking the proximity of some media-archaeological theories, such as Ernst's, to software studies – for example Wendy Hui Kyong Chun's (2011b) work, as well as Matthew G. Kirschenbaum's (2008) theories – and elaborating what it means that our regimes of memory are embedded in dynamic, changing and processual software platforms.

Chapter 7 taps into creative practice and how media archaeology has been used as an artistic methodology. As part of the investigation of how we can mobilize these theories into media cultural design as well, the chapter looks at important theoretical ideas and practical projects as well as drawing on some interviews with key current artists who build on old media technological innovations and cultures.

The concluding chapter is, besides, a summary, a further short elaboration on the methodology of media archaeology as a transdisciplinary take on digital culture. As such, it is introduced as analysis of the contemporary, the transhistorical, the non-linear and nomadic – hence, media archaeology is not 'only' a historical venture into media cultures but also asks the fundamental question: what do we *do* with media theory?

As this book is meant to work as both an introduction to and a continuation in media-archaeological theory and practice debates in contemporary theory, each chapter ends with a short paragraph summary that rounds up the themes discussed. The summary serves a pedagogical function, but also as a catapult towards further discussions and readings, hoping to spark off a media-archaeological interest in excavation of the everyday culture of digitality. It also points to some relevant articles, books or collections of articles, or Internet links, that take the interested reader and student to deepening insights and ideas. A recommended companion reading is the volume *Media Archaeology: Approaches, Applications, Implications* (Huhtamo and Parikka 2011).

The basic question of media archaeology could be seen simply, and in a manner indicated by Foucault, to be: what are the conditions of existence of this thing, of that statement, of these discourses and the multiple media(ted) practices with which we live? Such questions are political, aesthetic, economic, technological, scientific and more – and we should refuse attempts to leave out any of the aspects.