

*Sean Cubitt*

## Aesthetics and Anaesthetics

Eudaimonism and Melancholia in the Archive

“The ancestral spirits are harsh: were they not men?”<sup>1</sup> I take as my motto this phrase from the Confucian Odes, the book of folk songs collected by the great sage as a guide to rulers. Kung Fu-tse admonished the worthy man to pay attention to the songs of the poor as a window into their worlds, which the wise do well to take to heart. In these lines, the worst of miseries is to be forgotten by the ancestors. When we consider archives, we should consider not only how we recall the dead, but how they recall us.

In its original application to sensory experience, aesthetics dealt with the present, but in archive aesthetics we confront temporalities that extend backward and forward into times we experience both as sensory things here, now, in front of us, and also imaginatively as emissaries from the past to the future of which we form only one moment. To the extent that the aesthetic is also ethical, as I will argue, it ties us into networks of obligation which extend beyond the present moment into the deep past and the deep future. How does ethical obligation operate across this temporal disjuncture, and especially, if, as I will also argue, aesthetics are also always political, how does it relate to the dominant regime governing time today? Debt. I will argue that we owe a debt to our forebears for their artefacts and to the Earth for the materials they are made of; and owe a duty to those who will follow us. At the same time, as archivists, we share that sense of shame and anxiety about owing more than we can pay that characterises the debt “crisis” that has now lasted eight years. Debt as gratitude is a universal of human experience binding us to each other and to the earth. Debt as universal economic peonage ejects us emotionally and legally from the social, and poisons our relations with nature. Debt ties us to a very specific model of time: what we consume today has to be repaid, with interest, in the future. The condition of contemporary finance capital is that that the future is endlessly deferred, so that we continue to pay inter-

1 Pound 1954: 120.

est without ever coming to that lonely hour of final reconciliation that never arrives. Today I want to persuade you that archive ethics and archive aesthetics, have a special role to play in revealing an alternative mode of inhabiting time, not taking us back to a Confucian moment of communion with the ancestors, but helping us to consider ourselves as media through which the ancestral archives transmit themselves into a future other than that of perpetual indebtedness.

## The archive as an ethical category

In the first instance, the archive is not an aesthetic category but an ethical one, in that we owe some obligation to the past and the future to maintain objects in the present. This obligation is either virtuous (it is right and fitting to recall the dead and pass on their memory) or deontological (we remember and transmit ancestral actions as we would wish ourselves and our works to be remembered and transmitted). And yet, neither virtue ethics (according to which we strive to meet the demands of a specific code such as the Ten Commandments) nor deontological ethics (Kant's categorical imperative according to which we are logically compelled to pursue the good) seem to me to fit our current circumstances. It is not simply that certain demands – notably the prohibition against images common to all the Abrahamic religions – are worse than redundant; more that an unquestioning approach to obligation and duty cannot fit a critical modernity. The dominant ethical belief of our time – running precisely counter to the concentration of wealth in ever-diminishing numbers of hands – is surely utilitarianism, the commitment to the greatest good of the greatest number. This falls prey to four challenges: (1) archives are forced to justify their existence in competition with other demands on social resources; (2) this competition reveals that the welfare of the majority is code for, and indeed the code underlying, Adam Smith's doctrine of the invisible hand of the market<sup>2</sup> and as such integral to the dogma of neo-liberalism; (3) at the same time the term 'welfare' indicates that utilitarianism is the code underlying the statistical management of populations which we know as biopolitics; and most of all (4) utilitarianism assumes that the misery of the few is justified by the comfort of the many. The challenge of utilitarianism has always been that it is a politics masquerading as an ethics; but the use of that challenge is that it makes clear that the ethical challenge itself – such as the ethical obligation to archive – is itself a political one.

Today I would like to propose, against all three models, a eudaimonist response, grounded in Aristotle's belief that the pursuit of the good life is the purpose of both ethics and politics. The *Nicomachean Ethics* work methodically through various goods – pleasure, honour and wealth – to arrive at the philosopher's idea of the best life, the life of the mind.<sup>3</sup> At the end of the *Ethics*, Aristotle turns towards the next question – what is the good life

2 Smith 1836/1776: 107-139 (book IV, chapter II: "Of Restraints upon the Importation from Foreign Countries of such Goods as can be Produced at Home").

3 Aristotle 1925 / 350 BCE.

for a society? This is the task he will take up in the *Politics*. Ethics moves towards politics if, as I believe we must in the wake of Marx and Freud, we understand that the happiness of individuals is dependent upon the happiness of others.

The *polis* from which the word 'politics' derives was a city-state that excluded from citizenship slaves, women and to an extent even free men who were obliged to work for a living and therefore, according to Aristotle, did not have the leisure to consider and debate the good life. Yet the definition of politics as the administration of the polis depends precisely on these exclusions. The history of political struggle has been at its heart the fight to extend the definition of the polity to include slaves, women and colonised peoples. Today the exclusion of indigenous peoples, prisoners and – for Europe the most pressing political issue of the hour – migrants from citizenship and thus from a claim to a good life define the meaning of the state, of human rights, of international relations and our duties to one another.

We also exclude from our polity all non-human agents – bar one. Ethicists like Peter Singer seek to extend moral rights to animals; deep ecologists call us to recognise the rights of habitats, forests, oceans, mountains, rivers, and a small portion of them for the un-natural habitats of cities, factories and machines. In raising the question of exclusions and their histories, Jacques Rancière, Angela Davis, Chantal Mouffe and Ernesto Laclau among others argue that each expansion of citizenship has required an immense remaking of the very idea of the polity, the administration of public affairs, because both exclusion and admission ask fundamental questions about the work of politics, which is to discover and realise the good life for all.<sup>4</sup> To extend the franchise to prisoners and migrants is a deep challenge to the concept of the nation-state on which our global polity is founded. If we extend the polity to include those other things which we govern but which we allow no part in governing – environments in the broader sense, in which I would include the factory environment and the information environment – we must ask deeper questions still about what it is to live well. Can we live well while we enslave and destroy our world? Can we live aesthetically while condemning what remains other to ourselves and our administrations to anaesthesia?

The aesthetic is the heart of the good life. It is the pleasure of the senses and of the mind, the pleasures of integration and integrity. For eudaimonism, the aesthetic is the ethical life because it is the good life. The reverse is also true: there can be no aesthetic that is not also ethical, and no politics that is not also aesthetic, if it is to be the pursuit of the best way to live for all. If ethics is always on its way to politics – since to live well we need the rest of the world to live well too – then politics is always a question of the good life lived aesthetically. But actually existing politics *fails*, as it does in the era of climate change, an economic crisis that has already lasted eight years and is heading into a new crash in East Asia, and the crumbling of cosmopolitan ideals in the face of proxy wars and neo-fascism.

4 Rancière 1999, Davis 2003, Mouffe 2005, Laclau 2005.

If the archive is to serve it must serve the good life, for all, against environmental, economic and political collapse.

The aesthetic concerns the senses as well as the arts. The senses mediate between the human body, other humans and its environs. The arts mediate between humans and their environs, and in doing so employs various forms of technology. Aesthetics is then a matter of mediations through which we perceive and communicate our own happiness, or otherwise, and that of the worlds we inhabit, social, technological and “natural”. Therefore the ethical-political question of the good life, even before we extend it beyond the human, is already a question of mediations and thus aesthetic; and doubly so when the aesthetic is the first mediation through which we become aware of the unhappiness or otherwise of excluded and non-human others, the moment at which it ceases to be individual and becomes political. The archive operates in this aesthetico-ethical-political zone as a special intersection between human and non-human, included and excluded, as encounters between individuals and polities, and between them and technological and natural environments.

## The otherness of the archival film or video

Perhaps the most significant aspect of moving image archives is that archived works come toward us as alien, or at least as orphaned. We greet them not as evidence of a lost world, or not only that, but as technical artefacts. Their technicity confronts us. The otherness of the archival film or video comes towards us as a stranger, such that in the encounter we have the uncanny sensation of coming face-to-face with another being. Whatever else we view, we see the technical qualities of the thing: its substrate, its acquired damage, the edge lettering and the time-code. This object presents itself as fragile. We have come to realise that not only old nitrate stock but five-inch floppies and the drives to run them on, old Trinitrons and their ageing colour responses, old operating systems we need to run old artists’ CD-ROMs on are falling apart. The newest media are more fragile than the older, and the oldest are still immensely vulnerable to accidental and wilful damage. Even to store them requires energy, commitment and money. Thus they stand before us in need.

In Levinas’ account of ethics as first philosophy, sited on Aristotle’s bridge between ethics and politics, friendship, the encounter of human individuals is always already ethical: when I face the Other, the Other places on me a demand for recognition. In Simon Critchley’s reworking of the thesis, this is an infinite demand: I am obliged *beyond reason* to the Other.<sup>5</sup> Something of this alterity drives the archival encounter. What I encounter is other than myself, yet has a life, an existence, a presence of its own which I feel bound to acknowledge. This is why so many of us feel such deep revulsion at acts of iconoclasm – book burning, the wilful desecration of antiquities for the global trade in artefacts for the obscenely wealthy, or extraction industries destroying natural beauty. What confronts us is not just what is represented but the mediation, which is far more physically present in

5 Critchley 2007.

archival material than in the ordinary media we tend to see *through*. Even more than the most formally self-reflexive works, archival encounters bring us face to face with fragile but living entities who carry freights both of the intentions of their makers and of the accidents that have occurred to them in their journeys through time. The archival thing is more than its freight of human motivations and symbols, more even than the contingent asignifying elements gathered at the time of its making. It is itself a palimpsest of chemical and physical processes that occurred subsequently down the long years between making and the meeting in the archive. The things we encounter are in this sense wholly technological.

What is technology? In the pages of the *Grundrisse* devoted to machines, Marx offers the beginnings of an ethical answer. Factory technologies are the congealed form of human skills, gestures and tricks of the trade concretised in the actions of machines devoted to weaving, sewing, knitting, extruding metals or burnishing steel. A given technology is an assemblage of elements, from cogs to chips, lenses to casings, each of which is made in turn from techniques developed as handcraft in some distant past; means of bringing devices into series from more recent proto-mechanical devices; ways of organising and doing that have been ossified and placed over against the factory worker as a system from which she is alienated, yet which she must serve as a disciplined operator. In Marx this is a massive theft of skill turned against the very workers from whom they have been taken in capital's relentless transformation of specific work into abstract labour. What we should take from Marx's definition is that technological black boxes are the coffins in which we keep our ancestors. In traditional societies, each skill is associated with an ancestor, and the ancestors are evoked whenever that skill is deployed; but we have made ours anonymous, locked them into servitude, and set them as devices to control the living. Archival objects belong to this logic. When we encounter one, when we encounter it as technical, we confront the alienation of the dead. This is why the confrontation is so profoundly affecting and why it draws from us the respect and responsibility the archivist feels towards her charges. The commitment to the good life is unfounded if it does not include a commitment to the life of these artefacts, these ancestors.

Archives extend ethics beyond the interpersonal, humanist plane. While everyone involved in archival work has to speak to the utilitarian ethic, since that is how we raise funds, there is a more particular ethos involved in the archival confrontation. In Levinas' face-to-face encounter – in which the ethical relation situates the ethical subject as perpetually obligated to the Other – a paramount quality of the Other is its utter specificity. For Levinas only the encounter with another human counts (and not for example a film or televised representation), so that we only meet the other as a member of our species, a finally unknowable other who nonetheless shares with us a here and a now. The archival encounter, like the encounter with the recorded or broadcast image, is different in that the simultaneity and co-location are not guaranteed, and we do not meet our likeness in a member of our own species, but something other, ghostly, of another time and place.

But there are similarities with Levinas' encounter. The other is not a member of a taxonomic class or type but particular and distinct. This too is the case with the archival object.

Though we see a film or video as nitrate or safety stock, as U-matic or half-inch reel-to-reel, we also confront it as something that has had its own unique trajectory through time, acquiring its electrical or chemical scars, abraded and marked by the patina of age. Each archival object presents itself alone. The demand it places is the demand of the irreplaceable. Even if we are looking at duplicates, as Paolo Cherchi Usai asserts, there are no identical copies in the archive; in this disputing the tenet of Walter Benjamin that replication marks the mechanical media; Jean Baudrillard's concept of the copy without an original (since every copy is unique); and the popular belief that digital copies are all identical and that nothing is lost in copying.

## Politics of archiving

The archival ethic then is to save this specific copy. But that then places us in a dilemma. Not only is there the brute constraint that we cannot preserve everything. There is too the question of what it is that we are attempting to preserve. The traditional goal of the archivist has been to restore the object as near as possible to its original state: the cleaning of Titian's *Bacchus and Ariadne* for the National Gallery represents an apogee of this impulse, and the controversy over Daniel Goldreyer's restoration of Barnett Newman's *Who's Afraid of Red, Yellow and Blue III* its nadir. Increasingly faced with the constraints of storage costs, archivists are faced not only with the damnable choice between items to be taken on for full restoration, while marking others down to the tender mercies of storage in the full knowledge that they will continue to decay, but with the choice of what it is that they are going to try to conserve, the question then of canon-formation, and the balance between preservation and access to which Caroline Flick has recently devoted such deft historical scholarship.<sup>6</sup> The rival claims are impossible to balance. Frick argues that the industry has had the lion's share of preservation and access, while equally historically valuable industrial films, instructionals and amateur movies have not. Within those parameters, as Jane Gaines points out, there has been a tendency to ignore or sideline women's work— in a province where sidelining is in effect a death sentence, as she details in the case of a cache of Lois Weber silents left aside to moulder until they were no longer recoverable in the UCLA archive.<sup>7</sup> Many colonial films, African American films and other marginalised practices have suffered equally. These content-oriented questionings of the politics of archiving, and the politics of heritage as it operates to found and legitimate contemporary cultural regimes, suggest that the work of the archive is as much one of systematic forgetting as it is of remembrance.

As Michael Punt phrases it the question is whether we seek to save the software or the hardware of cinema:

6 Frick 2011.

7 Gaines 2007.

Either way, it is the films – that is the software of the cinema – that is considered to be the primary trace of human consciousness. What is excluded from this kind of history is the popular and individual imagination that is sustained by technology as hardware, and the act of engaging with technology (collectively and individually) as an extension of consciousness.<sup>8</sup>

Thinking through the exhibition of Emile Reynaud's projecting praxinoscope Théâtre Optique at the Musée Grévin, Punt argues that both animation and an anti-naturalistic and anti-scientific popular fascination with spiritualism and the unreal was as deep a driver of the origination of cinema as the realist narratives which became the norms of archivists. In the same analysis, he suggests that what was so fascinating was not the iconography but the technology of animation itself, with all its Frankensteinian inheritance. To extend Punt's arguments, the technologies that animated the inanimate reversed the historical process outlined by Marx, in which the animated gestures of workers became inanimate machines. The foregrounding of the technical substrate, in which the substrate is no longer subordinate, in archival work is one way of honouring both the anonymous dead and the now lost cultural event of the cinematic as a communication with another and non-human life.

To the extent that the ethical is that aspect of humanity that first orients us towards others, it is already social and already political. This ethico-political relation is not however immediate. It is conducted through the senses, by envisaging the face of the other (in sight, sound, touch), and increasingly since the inventions of photography, sound recording and telephony, by technological media. Like all human socialisation, ethical relations are mediated, whether by voice, gesture and clothing, or by situation, environment, and the more abstract channels of connection that we experience through money and trade. If we speak of power, as Foucault long ago noted, we must speak of that 'capillary action' by which it is communicated, through verbal orders, written laws, or the short end of a baton. The aesthetic, in which ethics are thus embroiled, is always mediated. To the extent that moving images mediate so radically and directly depicted human and non-human actors and at the same time mediate through the agency of a third non-human process, they are already engaged in an ethical and political process. I take Michael Punt's argument for attention to the hardware of motion pictures as pointing towards a commitment to the mediating process, and to an engagement with ancestral presences locked into our devices, historical and contemporary.

While media archaeologists like Erkki Huhtamo and Thomas Elsaesser have a powerful case that we should not approach past devices teleologically – insisting on understanding them as precursors of a normative cinematic apparatus – it is also the case that the normative apparatus of the present, to the extent that it is *one* apparatus, is built from the elements contrived out of ancestral labour over a period of centuries, to the extent that we need a genealogy alongside our archaeology. In this stereoscopic view of media history, the particularities of features like the succession of frames and the operation of scanning have lineages denoting not just the work of famed inventors, but the lost work of those who first

8 Punt 2005: 49.

developed techniques for regulating action through clockwork and vibrations, or whose embroidery and weaving created the terms for constituting images out of points of colour. Archive ethics always demands a responsibility to the dead; but it also includes a responsibility to those anonymous deceased whose labour inhabits and operates still in our machinery.

## Debt to the materials

By the same token we owe a debt to the materials from which those devices have been built. The science of ecology operates on a simple premise of connection: humans are part of the planet. The same might be asserted of our relations with technology, not as determinants in McLuhan's sense but in the cyborg model of Donna Haraway. Our lives are inextricably technological as well as biological, a case even more true of the dead in their technological permanence. The materials that media have been made from, and that persist in archives as concentrations of metals and plastics, have their histories too, histories that weave together the long disaster of silver mining, oil extraction, mining across centuries and continents often deeply involved in histories of colonialism and genocide, and histories of the energy derived from fossil fuels, hydroelectricity from damned rivers and flooded valleys, and nuclear power with its history of weaponised byproducts, devastated indigenous communities and waste. The deep time of the media which Jussi Parikka has extended from Zielinski to embrace the geological time of media is also the inheritance of the archive, and a responsibility which does not end simply because the materials have already long been dug, refined, concentrated and shipped to the metropolitan centres of wealth, power and culture.<sup>9</sup> The human history of exploitation is not lost by the transfiguration of metals into films and hard drives, or of oil into celluloid and videotape. Nor is the degradation of the planet healed by the cultural transformation of its resources into artefacts. On the contrary, we owe to that history an immense debt which we can repay only by respecting the materials that we hold. There is a certain shame involved in these precious artefacts, but even more if we fail to respect the artefacts themselves for the generosity, even if it was enforced, of the earth that gave them physical form. And a certain melancholy, which adds itself to the archivist's melancholic understanding that not everything can be saved. This melancholia should not, however be paralysing. Instead it should be the sense we all share, as Benjamin suggested almost a century ago, that we are the posterity to whom past generations looked to be the ones who judge. We have that great burden, and that duty, from carrying out which alone we can free ourselves to the good life that is our task. Long ago Michelangelo wrote of the statue that waited in the stone to be revealed. In the archive, we should recognise the stone that was sacrificed to make the statues, and precisely because we cannot repair it or return it to its native place, all the more should we be conscious of how hard it is to repay that debt, and how heavily our responsibilities lie upon our shoulders.

9 Parikka 2015, Zielinski 2006.

## Pastness of archived materials

If on the one hand we must argue the value of archives to the present and future, we also undertake the work in full recognition of a duty owed to the past. The pastness of archived materials is legible in their fragility. It is easy to see how pastness and fragility are aesthetic qualities. Their ethical value, in the expanded sense endorsed here, is to lay on us who are living the task of justifying to the dead and to those agents in the planet, from geology to plants, the sacrifices they have made to provide us with meaning and beauty, and with the very ethical challenge which we take up, and which also we owe to them.

Working on the Rewind archive of video art we constantly faced all of these questions and challenges. Among them is the question of what it is that we are capable of preserving from those pioneers, only forty years ago, who first deployed analog video to record their communities in struggle and their art. A brief glimpse of *Viaggio in Luca Patella* gives a sense of the weight of this question. A performance artist before he took up a camcorder, Patella's tape is structured by glitches, those horizontal crashes in the scan that result from combinations of interrupted signals, as when the camera was turned off and on, or edited. Time wears down the polyester tape, loosens the oxide particles from their bind with it, and disperses the magnetism whose orientation carries the signal. There is little by way of technique that could reconstitute the tape as it was in 1976. One quality of analog video was that with each generation, the signal to noise ratio increased far more than film dupes before or digital dupes after it. Running off a last copy, as archivist Adam Lockhart has done here, involves carefully heating in a kiln to bond the iron oxides just enough, without buckling the plastic, to allow the tape to run one last time through a reconstituted reel-to-reel deck so that the analog signal can be digitised and saved to digi-Beta, the archival medium of choice for the moment, though we know we will have to transfer onward within a decade. We preserve what we can, and what we preserve includes the artefacts of ageing. We know from Patella himself that the glitches were, in his mind, integral to the tape as he wished it to be seen, but we cannot ascertain which of the glitches were intended, which have migrated along the tape during editing, and which are artefacts of storage, since tape is very susceptible to magnetic fields from electric fields, even weak ones if the tape is not moved often. We have preserved the state of decay.

It is not simply that this is the best that can be managed. As in the case of a number of restorations, for example the Australian National Archive's of the 1906 *Story of the Kelly Gang*, the physical decay presents a new collaboration between machines and natural processes which produces a new work, apart from the work as it would have looked at its first exhibition which, if only in imagination or memory, we once envisaged as the goal of restoration. This new encounter is no longer with a pristine and immutable past but with a deeply mutable and mutating extrapolation, as it were an inhuman improvisation on a theme first laid down forty or a hundred years ago.

Eco-photographer Chris Orchard argues persuasively that still photographs are traumatically ripped from the continuum of time. The moving image was invented, one might

respond, as a way of healing that trauma, but can only do so on the principle that each frame is itself radically incomplete, necessitating the next image and the next. In this sense, moving image media offer an alternative model of movement through time to that of accumulating debt. Under financialisation, debt spends today the earnings of the future, mortgaging our future productions in the form of future wages that we are pledged to give the banks as soon as they are earned, so committing us not only to keep earning, but to maintain the wage relation in perpetuity, and so to close down the possibility of any alternative, any concept of the future as open possibility. In moving images, we commit instead to the unexpected, precisely because in each single frame we ineluctably miss the completion of flux in the present. In the archive of moving images, the apparent containment of past time in recordings is broken by the unavoidable interactions of the ostensibly completed artefact with the vagaries of human, technical and natural action. In its very decay, the archive video demonstrates the morbidity, not of ephemerality, but of permanence, where permanence has become the permanence of finance.

When we speak of melancholia then, we are not speaking of nostalgia but of what Freud referred to as a failure to mourn successfully, where success is measured by the ability to return to the ego and its normal round of duties, including its duty to perpetual repayment of debt. The archivist embrace of melancholy begins in the moving image's impetus to complete the rift in the real instigated by the still image, and inhabits the archive's impulse to return to its origin while knowing it is impossible. What remains is to recognise the fact, subjective and objective, of torn time; to encounter the infinitely demanding Other of decay; and to transform that inevitability into a talismanic promise that the future will not be an unending duplication of the past. Patella's *Viaggio*, like *The Story of the Kelly Gang*, already entered the world as ephemeral. Its ephemerality has been checked, for a while. We carry it forward, for a while. We can no more fix it than we can revoke Columbus or anneal Hiroshima. We conduct politics on the same basis. The aesthetics of archiving derive from this duty to the past, to the planet and to the nameless dead: our impossible task of bearing their truth to those for whom we in turn will also be ancestors. It is a melancholy science, but the only way for the melancholy eudaimonist, condemned to mourn the anaesthetic contemporary politics that excludes the good life, and obliged for whatever good we have or hope for, to the generosity of what has passed and is to come.

## References

- Aristotle (1925 / 350 BCE): *The Nichomachean Ethics*, trans. David Ross, Oxford: Oxford University Press.
- Critchley, Simon (2007): *Infinitely Demanding: Ethics of Commitment, Politics of Resistance*, London: Verso.
- Davis, Angela Y. (2003): *Are Prisons Obsolete?* New York: Open Media/Seven Stories Press.
- Frick, Caroline (2011): *Saving Cinema: The Politics of Preservation*, Oxford: Oxford University Press.
- Gaines, Jane (2007): "Sad Songs of Nitrate: Women's Work in the Silent Film Archive." In: *Camera Obscura* 22.3, pp. 170–178.
- Laclau, Ernesto (2005): *On Populist Reason*, London: Verso.
- Mouffe, Chantal (2005): *On the Political*, London: Routledge.
- Parikka, Jussi (2015): *A Geology of Media*, Minneapolis: University of Minnesota Press.

- Pound, Ezra (1954): *The Confucian Odes: The Classic Anthology Defined by Confucius*, New York: New Directions.
- Punt, Michael (2005): "What the Film Archive Can Tell Us About Technology in the Post-digital Era." In: *Design Issues* 21.2 (Spring), pp. 48–62.
- Rancière, Jacques (1999): *Disagreement: Politics and Philosophy*, trans. Julie Rose, Minneapolis: University of Minnesota Press.
- Smith, Adam (1776 / 1836): *An Inquiry into the Nature and Causes of the Wealth of Nations*, Volume 3, London: Charles Knight.
- Zielinski, Siegfried (2006). *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means*, trans. Gloria Custance, foreword Timothy Druckrey, Cambridge MA: MIT Press.