Book Section:
Schofield, M. orcid.org/0000-0003-0899-2000 (2024) The Technological Uncanny: The Role of Memory Prosthetics in Hauntological Practice. In: Stephenson, L., Edgar, R. and Marland, J., (eds.) Horrifying Children: Hauntology and the Legacy of Children's Television. Bloomsbury Publishing , pp. 155-170. ISBN 9781501390562

Chapter for Horrifying Children (Bloomsbury)

The technological uncanny:

The role of memory prosthetics in hauntological practice

Dr. Michael Schofield (University of Leeds)

Abstract:

Hauntology is a neologism that has come to mean different things to different people, since the term was first coined by Jacques Derrida in the early 1990s. In popular music, for example, hauntology has shifted from something that once described a particular philosophical approach and uncanny atmosphere, to the name of a very specific genre, defined by the reimagination of certain anachronistic tropes. We see this in the changing outputs from Ghost Box records, which has slowly moved from its more enigmatic and experimental origins, to something closer to a pastiche of 1970s cultural modernism.

Reflecting on a body of practice research by the author, encompassing experimental film, photography and electronic music (including an album that sampled television programmes vaguely remembered from the artist's childhood), this paper explores Mark Fisher's notion of the "technological uncanny", returning to the original theory and first principals of hauntology. The roles played by childhood nostalgia, aging technology and so-called 'prosthetic memory', are all explored in this context, asking why if all media is spectral, as Derrida asserted, do only certain media artefacts present as uncanny? The author aims to continue the work of the late Mark Fisher,

asking what hauntology means today, and whether or not certain formative concerns have been forgotten. How can new hauntological practice continue his investigations and return the machine to the ghost?

Bio:

Dr. Michael Schofield is a multi-modal artist and lecturer in media at the University of Leeds. His practice-led doctoral thesis (2018) examined the 'hauntology' of rephotography. Since completing his PhD he has published research on hauntology in the International Journal of Film and Media Arts, and with Intellect books (Narrating the City, 2020). His current research into spectrality, memory and media expands its scope to address sound and the moving image. Schofield also makes experimental films, publishing and exhibiting work under the alias Michael C Coldwell, and he releases hauntological music under the name Conflux Coldwell. His critically acclaimed album CC – AM was described as "everything hauntology could and should be in 2017", by Wire magazine. As an academic he has taught photography and filmmaking at the University of Leeds, Leeds Arts University, Sheffield Hallam and York St John University.

The technological uncanny

> "Hauntology isn't about hoky atmospherics or 'spookiness' but a technological uncanny" (Fisher 2006)

> "Hauntology is exercised by the problem of memory and its imperfect recovery" (Fisher 2013, 45)

Much of what we might consider to be hauntological today has less to do with supernatural spirits and literal ghouls, as it appertains to childhood memory and its mediations by technology. An ongoing cultural fascination with the strange and unsettling media of the 1970s and 1980s is largely filtered through hazy recollections of that time, revisited and reimagined by those who grew up during this specific period. The media artefacts that have endured also behave akin to ghosts, grainy and timeworn, yet digitally reanimated on new platforms, and denying their own mortality by continuing to haunt our screens, seemingly indefinitely. As we look back through this heavily mediated time, organic and technological memory can seem to conflate or disrupt one another – and this often provides the impetus for new hauntological works and explorations. Years on from the original "spectral turn" in critical cultural theory (Weinstock 2013), hauntology still shows no signs of dying, periodically resurrecting itself in different cultural areas, and evolving as it inspires new generations of academics, critics and artists, to look back and embrace the ghostly. As it does so, it is necessary to take stock and reflect on what we actually mean by hauntology in these shifting contexts, and to try and bring into focus its formative yet indefinite relationship with both memory and technology.

For many years, my own experimental practice as an artist has attempted to probe similar concerns and questions, exploring the hidden and haunted qualities of different media technologies, from archaic glass plate photography to modern webcams. *Zoetrope.space* (Coldwell 2019) was an audiovisual archive based on a personal media archaeology, unearthing television shows and video tapes that I half-remembered from my own childhood, and re-purposing them as short looping projections. The clips I selected for the work all possessed a certain eerie quality for myself, but I couldn't always fully deduce why that was. They were often seemingly quite innocuous, and not the usual folk horror tropes, or the deliberately scary public information films that routinely traumatised children in the late 20th Century, and that we often see recurring in contemporary British hauntological work. The haunted quality I was tapping-into didn't appear to originate solely in the strange content of the media sampled, rather it seemed to have something to do with the treatment of memory itself.

Fig. 1. Zoetrope.space by Conflux Coldwell (2019)

Paramnesia, confabulation and misremembering all became key concerns in the creative work as it developed. Looping and re-scoring the archived clips seemed to render them more unsettling, emphasising the gaps, disruptions and recontextualizations, that eventually transform and erase all memory. A fear of amnesia, or of me losing my grip on what was real, seemed to be the primary source of the most haunting phenomena I encountered in the project. This should not have come as a surprise, as some of the earliest hauntological works and theories primarily concerned disturbances of memory and memory loss. The Caretaker began similar experiments in electronic music in 1999, with his album *Selected Memories From The Haunted Ballroom* (Caretaker 1999), a long-term investigation of amnesia and technology ensued, that finally culminated in a multi-part portrayal of the progression of Alzheimer's disease, entitled *Everywhere at the End Of Time* (Caretaker 2016). The late Mark Fisher – a highly influential music journalist and cultural theorist, who arguably did more than anyone else to popularise hauntology and explain its cultural significance – used The Caretaker's work in his theory on the subject, to expound the differences between hauntology and nostalgia in the normal mode, and the key role played by disruptions to memory. Writing in 2008, on his K-Punk blog, Fisher suggested:

> "it is the very foregrounding of temporality that makes hauntology differ from the typical products of the nostalgia mode… The great sonic-theoretical contribution of The Caretaker to the discourse of hauntology was his understanding that the nostalgia mode has to do not with memories but with a memory disorder." (Fisher 2018, 716)

In both *Zoetrope.space* (Coldwell 2019) and the work of The Caretaker, this "foregrounding of temporality" was done through the manipulation of the recording technologies' innate properties – the foregrounding of their own noisy materiality and physical presence – which worked to emphasise certain innate spectral qualities of the media they carried, and the loss and absence those veiled features seemed to convey. For Fisher, the ominous crackle of the sampled vinyl used by The Caretaker, made "the dimension of time audible" (Mark Fisher 2018), something he went on the explore much further in *The Metaphysics of Crackle* (Mark Fisher 2013), charting similar patterns of foregrounded decay in the work of William Basinski, Philip Jeck, Burial and the Ghost Box record label. If we're to explore what hauntology means today, and its as-yet fully articulated relationship to memory, this seems as good a place to start as any.

Returning to the originary theory, Fisher's conceptualisations of hauntology can be traced back to Jacques Derrida, who coined the term in *Specters of Marx* (Derrida 1994). This influential book revisited and deconstructed Karl Marx's infamous "specter of communism", shortly after the fall of the Soviet Union, and addressed how this phantom continued to exert a powerful effect on Europe, while no longer being present as such. A homophone of ontology in French – and something of a joke by Derrida – hauntology was characteristic of a larger project by the philosopher, undermining simplistic metaphysical conceptions of presence, through the invocation of traces, ghosts and haunting. Long before *Spectres of Marx* (1994), Derrida was interested in the spectrality of media too – and his sporadic writing on this topic is probably more useful to a Fisherian view of hauntology, than the book in which the neologism

originated. As far back as the early 1980s, Derrida was musing on the importance of ghosts in the modern world, and the increasing role of media technologies in their perpetuation. He appeared in Ken McMullen's film *Ghost Dance* (1983), stating in the interview that "cinema is the art of ghosts, a battle of phantoms" and that the technologies of communication enhance "the power of ghosts and their ability to haunt us". For Derrida, all media was spectral.

> "Spectrality is at work everywhere, and more than ever, in an original way, in the reproducible virtuality of photography or cinema" (Derrida 2005, 108)

> "Spectrality… far from being reduced by the rationality of modern technology, found itself, on the contrary, amplified… Every culture has its phantoms and the spectrality that is conditioned by its technology" (Derrida et al. 2010, 39)

It doesn't seem like a coincidence then, that cultural hauntology is "amplified" at roughly the same time as the "digital turn" (Westera 2012), with new media technologies and practices of communication keeping our ghosts alive in new ways. This is also acknowledged within memory studies, to an extent, with media seen as playing an increasingly important role in deciding "what we remember and how we remember it" (Daković 2021, 3). I began to explore this and Derrida's notion of media spectrality in my creative practice research, wondering why, if these technologies are *all* intrinsically spectral, as Derrida suggested, only certain examples have the power to genuinely haunt us? This spectrality seemed to be on a spectrum of some kind, usually hidden from view, but nevertheless a latent potential within recorded media,

that could be brought to the fore, in certain contexts. What was it then that made these ghosts appear, and why were they hidden the rest of the time?

> "technicity is hauntology, in that technical artifacts haunt their users with the possibility and actuality of absence" (Gere 2016, 105)

Charlie Gere's research into the hauntology of the digital image offered something of a clue – it was the "possibility" of "absence" that could lead to media haunting, and this potential could sometimes be rendered visible and/or audible through the foregrounding of the technology's own material *presence* – as we saw in Fisher's meditations on "crackle". In most cases, media technologies offer a very immersive and normalised illusion of presence, and it is only when this deception is disturbed that we can be made aware of a recording's inborn spectrality, and even its own mortality. In *Aura and Trace* (Schofield 2018) I postulated that this was because recorded media isn't just one type of thing (a ghost), but more like two (a spirit and a medium).

> "A material ghost must have a dual nature: the present object, the support or 'medium' (which can often be invisible to us), and the spectral trace of the past that it channels" (Schofield 2018, 24)

When the physical object that we are actually co-present with (the media technology) becomes more perceptible in some way – often through decay or damage to the recording – we have the "possibility" of seeing the present trace of the "absent" for what it is: a ghost.

A couple of years after *Zoetrope.space* (2019) I moved on to another creative research project, that while utilizing similar methods – and addressing more-or-less the same theory on spectrality – didn't start from my own childhood recollections of specific media, but instead from a box of unlabelled VHS tapes that I found at my parents' house. Most of the video recordings were very badly damaged. Some of them I remembered immediately, a couple of tapes even including examples of my own early work. Others were forgotten, totally unknown and seemingly random. Scraps of old science documentaries from my mother's Open University course in the late 1980s. A programme about natural disasters and extreme weather taped off the television. A film about the history of the London Underground. Several old b-movies and war films. And *lots* of noise. Looking through the corrupted tapes made me realise the ultimate fragility of all our recordings and the memories they can potentially hold for us. These analogue cassettes only have an estimated lifespan of 25 years, and this artificial afterlife is only granted to the videos we actually decide to keep. The vast majority went to landfill when the world went digital – I began to wonder what might have been lost in this waste. The assumption that *everything* has now been digitally preserved and made available online forever, is surely mistaken. There are gaps and absences. Media can still die. I decided to try and recover what I could from this little archive and make something new out of the various remnants. An overarching theme emerged from what I created: entropy and legacy. This marked a shift from personal to cultural memory in my artistic preoccupations. What will survive of this time for future generations? What will be destroyed? What if this random selection of decaying tapes were the last evidence of life on Earth? *Memorex Mori* (Coldwell 2023) was the audiovisual work resulting from these questions and my various VHS experiments, and it functioned like a piece of technological vanitas. Once again, the background

noise of the media technology itself was a vital ingredient – this time I made it the primary focus. The work presented the flickering media ghosts as unidentifiable, as fatally-fading, as nearly absent, as the not-quite-alive, and as the soon-to-disappear completely.

Fig. 2. Memorex Mori by Conflux Coldwell (2023)

> Interference and Defects: A particularly hauntological medium is an obsolete, archaic medium (such as audio or videotape), because it imparts a new spirit to dead matter (Drenda 2013)

Mark Fisher wasn't the only writer on hauntology to notice the noisiness of the ghostly media emerging from late postmodern culture. Olga Drenda, Elodie Roy (2015) and Katharina Niemeyer (2014) have all made note of the use of anachronistic technologies and the foregrounding of their characteristic noise in hauntological practice – with Niemeyer asserting that this was "a strategy of re-enchanting an object

through aesthetic defamiliarization, as it is characterised by deliberate imperfection" (Niemeyer 2014, 34). For the most hauntological, this wasn't just an exercise in nostalgic fondness for primitive technologies. The tendency towards foregrounding "the noise, not the signal" (Niemeyer 2014, 34) is redolent of ghost hunters endlessly searching for voices in meaningless static. The desire to commune with the lost is the same, as is the hallucinatory quality of what is ultimately found. What is often missed is that the presence of noise is an acknowledgment of a failure of presence of something else – a physical rendering of that loss, a reminder of the passage of time and of death itself. It is this that can have the most haunting effect in hauntology. Roland Barthes noticed a similar phenomenon in photography, in his meditations on what he termed "punctum" (Barthes 1993). This visceral emotional reaction to an image can be triggered by some unexpected detail, but more often than not, it embodies a form of haunting, as Barthes details in his writing on "time as punctum" (Barthes 1993, 96) – he recognised that all photographs have the potential to haunt us as memento mori, and that this is the medium's greatest power. In this form, the punctum is an example of the technological uncanny. In certain images we can feel haunted as we are made aware of the presence of what should be dead and buried, re-appearing but now disembodied, many years later, by some technical trick of the light. While Barthes was speaking only of photography, similar affects can be found in other media, including film, television and recorded sound.

> "Hauntology functions as a kind of deconstruction; to acknowledge that cinema is a haunted medium is to submit to its capacity to perpetuate ghost stories, but also to the technological uncanniness of the very concept of cinema" (Clanton 2012, 69)

We only perceive these different technological reproductions as uncanny if they do decompose somehow, and we are suddenly surprised by their essential unrealness – the temporal disjuncture and absence / death of the traces reproduced before us. So accustomed are we to engaging with life through media we don't often see this: we look through the reproductive technology as if it was Barthes' "transparent envelope" (Barthes 1993, 5), as if we were looking upon life itself through a window, rather than an unnatural copy of life, that ultimately disrupts time and space. Hauntological practice often seeks to break this illusory envelope and renders the familiar copies of media strange. We can experience our own memories as uncanny once this happens. Noisy media is just one tool in that hauntological armoury.

Media technologies can become uncanny in this way because they have become a key part of the modern self, but a part we don't yet fully understand or often acknowledge. Ciano Aydin explores this psychoanalytical aspect in relation to robotics and the uncanny valley, but the concepts explored in the writing are potentially translatable to memory technology and to hauntological media:

> "The technology within is not completely strange or foreign, since it is a constitutive part of our subjectivity and selfhood… Technology is strange and familiar, at the same time. [This] explains why it can be experienced as uncanny". (Aydin 2022, 312)

Prosthetics are a key consideration on Mori's original graph of the uncanny valley – "when a prosthetic hand that is near the bottom of the uncanny valley starts to move,

our sensation of eeriness intensifies." (Mori 1970). Mori is referring to physical artificial limbs in this famous investigation, but in recent years the concept of prosthetics has expanded to include the technologies of memory (Landsberg 2004) (Lury 2013). David Bate and Celia Lury have also written extensively on photography as a memory prosthetic, but this can be expanded to include all the other forms of recording and producing media texts – all the technologies that we routinely use to remember for us – and those that become an integral part of our own organic memories of childhood.

> "If, like Freud, we count photography as one device among the long history of different techniques of "artificial" or "prosthetic" devices for the support of human memory, then the question it raises is what specific impact photography has had on human memory and the cultures that use it." (Bate 2010)

Hauntology includes an indirect examination of these kinds of questions – of media technology's increasing role in human memory and the cultures that use it – the uncanny glitches in time, the false memories and confabulation that can occur once a generation grows up using such prosthetics from a very young age - consuming the majority of culture through various technologies of reproduction. Hazy yet formative memories are just as likely to be the television programmes we watched as children as they are family holidays, Christmas presents or learning to ride a bike. As technologies that form a "constitutive part of our subjectivity and selfhood" (Aydin 2022, 312), memory prosthetics should be some of the most influential of all.

The uncanny valley graphs familiarity against human likeness – but this doesn't fully acknowledge the contradiction that we experience the uncanny when something is

both familiar and strange at the same time – or once something very familiar (usually something about ourselves), is rendered or revealed to be somehow disturbing. It is depicted as a valley because we can climb the other side towards things that are so similar to human beings, that we feel they are safe and familiar again, despite being artificial. Modern media creates such a powerful illusion of presence (and we are so accustomed to it), that as a form of prosthetic, it may be functioning firmly on the other side of this allegorical gorge. Older media is certainly less perfect an illusion in many ways – with all its aforementioned noisy imperfections – and the memories it preserves are further removed from our current lives, reducing their familiarity through time. What has the potential to render memory uncanny here is media's ability to create disjunctures in time, to make us doubt the veracity of our own organic memory in the process, sometimes unsure of which memory we should trust, or just unsettled by blurred "boundaries between real and simulated" (Landsberg 1995, 189) memory. This fallibility can be an instinctive source of great unease, as memories are revealed to be as slippery and illusory as ghosts – but ghosts that are as devastatingly subject to transience and decay as our own bodies.

It must be acknowledged that thinking about technological memory as a form of prosthesis is merely a metaphor (Hutton 2022), and any similarity between Mori's uncanny valley, and the technological uncanny of memory, is therefore just a thought-provoking correlation. Memories are not bodies, after all, and technology seems to disembody memory yet further. However, using this comparison as an analogical model to further unpick hauntology, we can see that something must take us out of our usual memory "comfort zone", before media begins to have its implicit haunting and eerie affects – something must remind us of its unfamiliar and hidden deadness

– and much like the uncanny valley, this spectrality probably falls on a spectrum, as mentioned earlier. When mediated memory glitches, when the prosthetics we rely on fail, or the illusion is otherwise broken, that is when we are most haunted by it, as we tumble into the “uncanny valley” of malfunctioning memory.

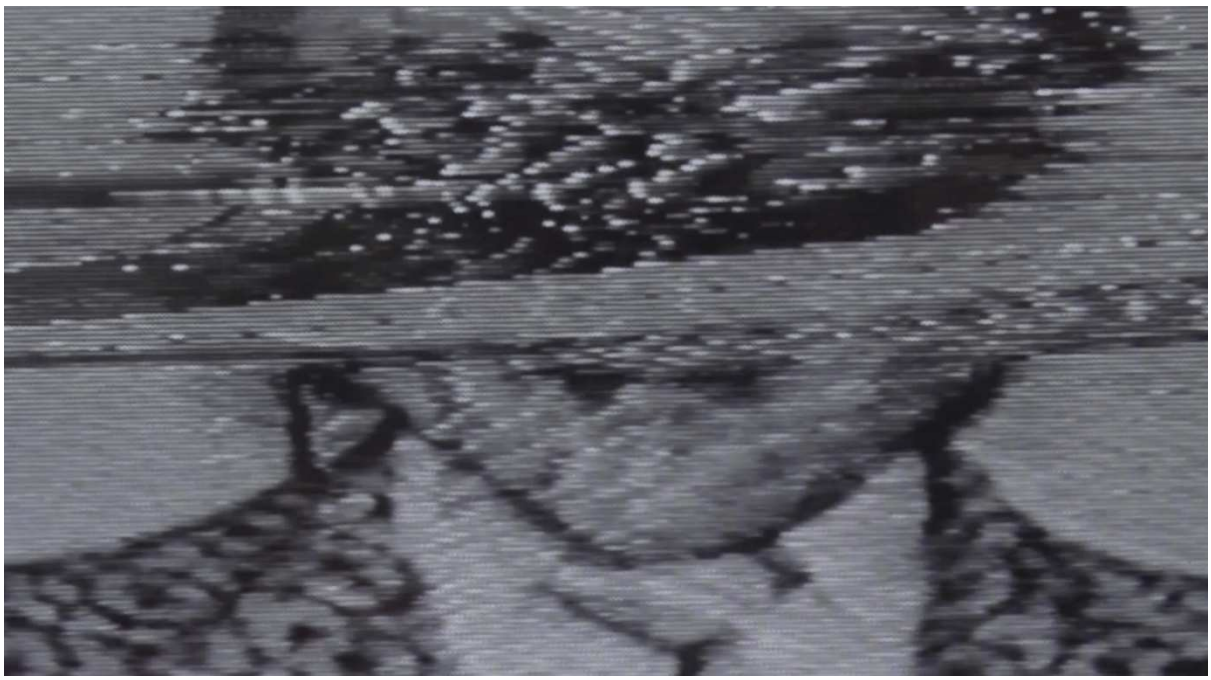

Fig. 3. Memorex Mori by Conflux Coldwell (2023)

In *Memorex Mori* (Coldwell 2023) the aging technology used readily created ghosts. It was important to the project that this wasn’t a fabrication on the part of the artist, but always a highlighted feature of the decaying media itself. Bad tracking and playback errors lead to normal dialogue sounding like demonic voices from a bad horror movie. Glitches and noise obscured faces making those appearing unrecognisable or even dehumanised in some way. During the section entitled ‘Moulding’, figures and faces are paused on the video, but they continue to flicker and move by virtue of the looping

analogue substrate. The uncanniness of the images and sounds presented here seems to stem from the same dichotomy highlighted by Freud himself (via Jentsch).

> "…whether an apparently animate being is really alive; or conversely, whether a lifeless object might not be in fact animate" (Freud 1919, 226)

Seemingly familiar scenes are made strange in this way by the broken technology, presenting people in some ambiguous state between animate and inanimate, between alive and dead. This uncanny atmosphere seems to permeate the whole work, spilling over into its depictions of places and objects, as well as those unsettling human representations. Towards the end, in a section called 'After Math', the signal seems to disintegrate completely for several minutes, before slowed-down figures begin to emerge from the walls of noise, ostensibly coming back from the dead.

For us to find something familiar in the first place is to invoke memory to some extent. Even the video materials I didn't recognise from my own past could therefore trigger memories – my familiarity with the particular characteristics of the video medium itself was enough to transport me to an earlier time. Certainly, the tapes I used in the work that had more of a personal connection would induce a deeper emotional response, but if I remembered them too well, I was unlikely to experience them as uncanny, even as the technology distorted them into eerie forms. It was always with the half-remembered that the ghosts seem to materialize most, and perhaps this is where the depths of this specific uncanny valley lie. It is here that we feel uncertainty about memory prosthesis, and where we ultimately confront the potential for paramnesia within ourselves.

> “Any kind of distinction between ‘real’ memories and prosthetic memories – memories which might be technologically disseminated by the mass media and worn by its customers – might ultimately be unintelligible” (Landsberg 1995, 183)

It isn’t when we notice a prosthetic as artificial that we experience the uncanny, it is when that prosthetic makes us realise we have forgotten what is real – when we become cognizant that those boundaries have become blurred internally. In *Zoetrope.space* (Coldwell 2019) there was a sense that the looping and re-scoring of the video clips was an act of defamiliarizing my own childhood memories. The technological uncanny came into play because these simple technical manipulations jarred with my own mnemic sense of self. To break time yet further, some of the clips were re-scored with looped recordings of my own children watching these television shows and playing along on xylophones and old keyboards. These sounds, in turn, were defamiliarized by the technology. Working with loops and echoes is to work with the fabric of time and push it closer to the disjointed form of memory, which works through repetition and is non-linear in nature. My own children watching these shows with me was itself a form of technologically-aided time-loop, and the creation of new memories of media that cannibalised old ones. In this project the distinction between real and prosthetic memory certainly became unintelligible in the way Landsberg suggested, but the processes and technologies used in the creative practice mirrored those that we use in everyday life. Recording, returning and repetition are routinely aided and encouraged by modern media technologies. We can show our children

pieces of our own childhoods. We can revisit lost fragments of our pasts at the click of a button, completely out of context of time and our real memories of it.

To fully explore the role of memory prosthetics in hauntology we need to extend these ideas beyond personal memory and look for similar effects in the wider sharing of cultural memory, but any clear boundary between personal and cultural memory also becomes blurred with time.

> "Much of popular hauntology has a yearning quality, and I wondered whether the movement was, at least partially, an attempt to rationalise (and fill in the blanks of) a collective childhood that has become a delicious, jumbled mish-mash of fleeting memories" (Fischer 2019)

> "Within hauntological-related work there is also often a deliberate mis-remembering of the past, filtering it through your own personal vision, reimagining it in your own form" (Prince 2018, 123)

However deliberate the reimagining of these fleeting memories is in hauntological culture, it nevertheless mirrors the real problems of fading and distorted memory already discussed – and in turn, this memory "remix" becomes part of cultural memory itself, distorting it further. The "yearning" Bob Fischer alludes to is no doubt symptomatic of a memory loss that has already happened, and this then becomes hard-coded when it is embodied in new cultural texts that reference the past. What separates the hauntological from mere nostalgia, as Mark Fisher explored (Fisher 2018, 716), is that rather than just "filling in the blanks" with pure phantasy, it highlights

those gaps and temporal disjunctures – foregrounding their uncanny nature – and revealing all memory as potentially phantasmatic in the process. It is the uncanny nature of memory prosthetics that separates hauntological practice from the merely retro, and hauntological affects from those of nostalgia. Without this acknowledgment, hauntology is in danger of moving ever closer to the usual retromania and postmodern pastiche, with memories of past forms recreated lovingly within present ones, yet the malfunctioning role of memory in haunting is forgotten. For Mark Fisher there was a philosophical and political dimension to this too. To forget these haunting absences is to somehow uphold ideological phantasies that habitually paper over the many mnemic cracks.

> whereas postmodernism glosses over the temporal disjunctures, the hauntological artists foreground them (Fisher 2013, 46)

For Fisher, postmodernity finally succumbed to a static "spectral time" and the "technologies that made us all ghosts" (2013, 48), but simultaneously it screened-out any detectable spectrality of those recording devices, hiding it from view, and naturalising its uncanniness. Hauntology exists to upset this prosthetic illusion of presence and reveal postmodernism's permanent revivalism as fundamentally artificial. For Fisher, it is the future that has been stolen from us, and we can only see that by looking back in time and finding the gaps – "we must listen for the relics of the future in the unactivated potentials of the past" (53).

In Fisher's early writing on hauntology, the outputs of the Ghost Box record label seemed to embody this tendency as much as any other hauntological practice. The

Ghost Box was television, or more correctly, “a television that has disappeared, itself become a ghost” (Mark Fisher 2005). The recreated memories of this lost media were knowingly artificial. They were warm, hazy and nostalgic but also strangely unsettling. Fisher saw this as a direct contrast to the irritating “citation-blitz” of postmodernism, and also a key exploration of the lost futures of 1960s and 1970s modernist ideals. Quaint retro science fiction references rubbed shoulders with folk horror and the unique quirkiness of public service broadcasting of the time, but this wasn’t just a trip down memory lane for its own sake – the technological uncanny was there in the background, disrupting linear temporality and the assumption of progress.

> “Ghost Box is implicated in a web of pulp esoteria: Children of the Stones, New English Library paperbacks, Hammer films, Lovecraft, Lewis, The Tomorrow People, Blackwood, Timeslip…” (Fisher 2005)

In *Ghosts of my Life* (2014) Fisher acknowledges that Ghost Box have been “accused of nostalgia” (136), but that their work presented something more paradoxical than that – it was a nostalgia for the future, or at least a future we thought was coming when we were children. For Fisher, Ghost Box were at their strongest when they “foregrounded dyschronia, broken time” (137), and once again, this was often achieved through rendering the technology of reproduction perceptible – “the joins are too audible, the samples too jagged, for their tracks to sound like refurbished artefacts” (137). In recent years it could be argued that Ghost Box has lost some of this lo-fi dyschonic aesthetic. If you compare early releases by Belbury Poly and The Focus Group with Plone’s *Puzzlewood* (2020) or Belbury Poly’s own *The Gone Away* (2020),

the latter seem much more like straight pastiches of an outmoded sound. The uncanny disjunctures now seem to be missing, or at least buried deeply in the retro aesthetics.

A similar, but less pronounced trajectory, can be noticed in the work of Richard Littler, working under the name Scarfolk. Initially published as an obscure blog of fake artefacts from the archive of a fictional town council, Scarfolk has grown into a successful series of publications with a fair amount of mainstream media attention. Dark and uncanny esoterica gave way to narrative material with a much more overtly satirical intent, although the humour was often still pitch-black. While the joins and disjunctures were arguably more visible in his earlier outputs, the dystopian nature of the satire somehow maintained the hauntological ethos. It did so via what Adam Harper calls the "hauntological layer" – with the layer, in this case, being the humour itself.

> The second, 'hauntological' layer problematises, compromises and obfuscates the first layer, undermining or damaging it in some way. (Harper 2009)

Harper noticed that in hauntological practice an ideal view of the past is often presented alongside something which disturbs it, and our memory of it. Whether this layer is an innate feature of the technology such as noise, or some key element added afterwards – memory damage is still key to hauntology. This second layer defamiliarizes cultural memory, raising questions about what might be missing or deliberately omitted. For Fisher, cultural hauntology always had this imperative to "unsettle the pastiche-time of postmodernity" (Mark Fisher 2013, 47) – it had to be a haunting with a purpose.

With *Zoetrope.space* (2019) and *Memorex Mori* (2023) I hoped to avoid such pastiche-time by sampling the old media directly and then decontextualising it, using innate features of the technology. It wasn't a recreation of a past fondly misremembered, it was the technological ghosts of our past re-emerging and misremembering themselves. With *Memorex Mori* the hauntology became increasingly purposive as the project progressed, although this was still very much subtextual. An unforeseen apocalyptic tone began to permeate the work. The subtext in question concerned environmental destruction and climate change. An idealised view of the past was presented in some of the gathered materials, such as vintage science documentary footage of nature. Juxtaposed with fragmentary scenes of destruction and the palpable erosion of the media itself, the "hauntological layer" seemed to be indicating a lost future without the impending threat of a mass extinction event on the horizon – a past future where we saw what was happening and acted soon enough. We have known about "global warming" since the 1980s when there was still optimism that we would be able to avert it – a naïve hopefulness we seem to have forgotten. These memories slip between the cracks, barely visible but still haunting the noisy video as it disintegrates and finally disappears. Neither nostalgia nor pastiche are words I would use to describe the haunting feeling this leaves me with.

While not always this overt, the technology of memory is key to all hauntology. Even when the spectrality of media isn't foregrounded in the ways we have discussed, its supporting technology is the key medium that makes these hauntings possible. The ghosts we can be sure of existing are uncanny features of memory – both personal and cultural – that are "amplified" by memory prosthetics, most notably when they fail.

Placing technology at the centre of this argument certainly opens it up to accusations of technological determinism – which has been rightly criticised as ahistorical and reductionist (De la Cruz Paragas and Lin 2016). However, while I would agree all media is socially constructed and socially employed, one of the key aspects missing from a "hard" socially deterministic view, is the role played by accidents, by certain unforeseen and unplanned features and properties of technology. Glitches, errors and noise are accidental characteristics that most media technologists would strive to remove or "gloss over" – as Mark Fisher might have said – but it is when these technologies go wrong that certain truths about them (and us) can be revealed.

> "The accident (and thus the glitch) shows a system in a state of entropy and so aids towards an understanding of the ultimate functioning of a system. This opens up space for research and practice, and the arts are a special domain for this" (Menkman 2011, 32)

Paul Virilio saw the importance of such accidents for art, and explored "technology's many unintended social consequences" (Dawes 2019, 118) in his work. For Virilio, such errors in the systems we rely on have the ability to reveal things we would not "otherwise know how to perceive" (Lotringer and Virilio 2005). Hauntological glitches in time and memory were not an intended function of media technologies, but they *can* fulfil various social purposes. How we chose to use these ghosts is still up to us.

If hauntology is to remain critically imperative, it should continue to explore the relationship between memory and technology, using this as prime territory for fresh ghost hunting. Re-establishing this as a core tenet of any hauntological "movement"

(Mark Fisher 2006) is important to prevent its cultural outputs from sliding into the nostalgic revivalism it emerged to disrupt – which is rarely all that haunting anyway. Contemporary hauntology's strong links to childhood memories from the mid-to-late 20th Century, are clear to see, but these cultural references will change again, and more important to the general concept of hauntology, are the accidental ways in which that memory has been mediated, altered and even erased by prosthetics. While these technologies continue to mediate memory for us and produce their own ghosts, the hauntological will stay relevant to culture in some form. Paradoxically, in our late postmodern epoch, dominated as it is by such technology, and in which much more of our past is recorded and accessible to us than ever before, it seems to be our fear of forgetting that has the potential to haunt us the most.

Reference list

Aydin, Ciano. 2022. "The Technological Uncanny as a Permanent Dimension of Selfhood." In *The Oxford Handbook of Philosophy of Technology*, edited by Shannon Vallor. Oxford University Press.

Barthes, Roland. 1993. *Camera lucida: reflections on photography*. Vol. Book, Whole. London: Vintage.

Bate, David. 2010. "The Memory of Photography." *Photographies* 3 (2): 243-257.

Belbury Poly. 2020. The Gone Away. Ghost Box.

Caretaker, The. 1999. Selected Memories From The Haunted Ballroom. V/Vm Test Records.

---. 2016. Everywhere At The End Of Time. History Always Favours The Winners.

Clanton, Carrie. 2012. "Hauntology beyond the cinema: The technological uncanny." *ManyCinemas* (3): 66-76. https://d-nb.info/1029920605/34#page=66.

Coldwell, Michael C. 2019. Zoetrope.space. Crooked Acres.

---. 2023. Memorex Mori. Subexotic.

Daković, Nevena. 2021. "Digital Turn–Memory Studies." *The IPSI Transactions on Internet Research* 17 (2): 2-7.

Dawes, Simon. 2019. "Paul Virilio and Media Theory: An Introduction." *Media Theory* 3 (2): pp. 117-120.

De la Cruz Paragas, F, and T.T. Lin. 2016. "Organizing and reframing technological determinism." *New Media and Society* 18 (8): 1528-1546.

Derrida, Jacques. 1994. Specters of Marx: The State of the Debt, the Work of Mourning, and the New International. New York;London;: Routledge.

---. 2005. *Paper machine*. Stanford University Press.

Derrida, Jacques, Hubertus von Amelunxen, Michael Wetzel, Gerhard Richter, and Jeff Fort. 2010. *Copy, archive, signature: a conversation on photography*. Vol. Book, Whole. Stanford, Calif: Stanford University Press.

Drenda, Olga. 2013. "The Alphabet of Hauntology." *Czas Kultury [Time of Culture]* (2/2013). http://czaskultury.pl/en/the-alphabet-of-hauntology/.

Fischer, Bob. 2019. "The Haunted Generation." https://hauntedgeneration.co.uk.

Fisher, M, and J Barton. 2019. On Vanishing Land. In *On Vanishing Land*: Flatlines.

Fisher, Mark. 2005. "Unhomesickness." K-Punk. http://k-punk.abstractdynamics.org/archives/006414.html.

---. 2006. "Phonograph Blues." K-Punk. http://k-punk.abstractdynamics.org/archives/008535.html.

---. 2013. "The Metaphysics of Crackle: Afrofuturism and Hauntology." *Dancecult: Journal of Electronic Dance Music Culture* 5 (2).

---. 2014. *Ghosts of my life : writings on depression, hauntology and lost futures*. Winchester: Zero Books.

---. 2018. "No Future 2012." In *K-Punk: The Collected and Unpublished Writings of Mark Fisher* . Repeater.

Freud, Sigmund. 1919. "The 'Uncanny'." In *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XVII (1917-1919): An Infantile Neurosis and Other Works*, 217-256.

Gere, Charlie. 2016. "The Hauntology of the Digital Image." In *A Companion to Digital Art*, edited by Christiane Paul. John Wiley & Sons.

Harper, Adam. 2009. "Hauntology: The Past Inside The Present." *Rouge's Foam: Excessive Aesthetics* (blog). http://rougesfoam.blogspot.co.uk/2009/10/hauntology-past-inside-present.html.

Hutton, Margaret-Anne. 2022. "Putting metaphor centre-stage: A case study of Alison Landsberg's 'Prosthetic Memory." *Memory Studies* 15 (1): 230-242.

Landsberg, Alison. 1995. "Prosthetic memory: total recall and blade runner." *Body & Society* 1 ((3-4)): 175-189.

---. 2004. *Prosthetic memory: The transformation of American remembrance in the age of mass culture*. Columbia University Press.

Lotringer, S., and P. Virilio. 2005. The Accident of Art. New York: *Semiotext (e)*.

Lury, Celia. 2013. *Prosthetic culture*. Routledge.

McMullen, Ken. 1983. Ghost Dance. Channel 4 Films.

Menkman, Rosa. 2011. *The glitch moment (um)*. Institute of Network Cultures.

Mori, Masahiro. 1970. "The uncanny valley: the original essay by Masahiro Mori." *IEEE Spectrum*.

Niemeyer, Katharina. 2014. *Media and nostalgia: Yearning for the past, present and future*. Springer.

Plone. 2020. Puzzlewood. Ghost Box.

Prince, Stephen. 2018. *A Year in the Country: Wandering Through Spectral Fields*. A Year in the Country.

Roy, Elodie A. 2015. *Media, Materiality and Memory, Grounding the Groove*. Ashgate Publishing.

Schofield, Michael Peter. 2018. "Aura and Trace: The Hauntology of the Rephotographic Image." Doctoral dissertation, University of Leeds. http://etheses.whiterose.ac.uk/22615/.

Weinstock, Jeffrey Andrew. 2013. "Introduction: The spectral turn." In *The Spectralities Reader: Ghosts and Haunting in Contemporary Cultural Theory*, edited by Esther Peeren. Bloomsbury Publishing USA.

Westera, Wim. 2012. *The digital turn: How the internet transforms our existence*. AuthorHouse.