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World-making and Un-doing:

Looking at minor cultural forms through moving image practice

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Abstract

World-making and Un-doing: Looking at minor cultural forms through moving image practice, examines how contemporary artistic practice - particularly artists’ moving image - can function as a unique and productive site within which to explore the ‘world-making’ capacity of certain objects. These include photographic postcards and woven tourist items; ‘minor’ cultural objects which combine aspects of representation, technology, memorialisation, and militarism in material form.

This PhD takes the concept of ‘world-making’ to be broadly understood as attempts to “imagine, shape, revise, control, and articulate the dimensions of the world”\(^1\) to master it, through the employment of current theories of modernity. World-making, in this sense, is bound-up with acts of observation, measuring, naming, and re-naming: and with the technologies which enable these processes of mastery, such as photography. World-making is also connected to practices that inform and dictate how (modern) people engage with the world, such as tourism and the military: large-scale industries with global reach.

In this practice-based research, “un-doing” has been considered as a strategy, act, or approach that dismantles or disassembles human-made constructs. Whether in relation to a physical object or a concept, the process of un-doing is intended to stop such constructs from functioning in the manner intended by their makers, and to reveal their constituting elements.

My research draws on theories concerning the ontology of the photograph (Roland Barthes) and of photography (Susan Sontag); the use of the ‘still’ photograph in moving image practice (Raymond Bellour, Volker Patenburg); its relationship to the employment of suture (Jacques-Alain Miller) and forms of collage. In exploring minor forms of representation in relation to militarism (Teresia Teaiwa), in addition to the photographic postcard, this project is informed by the historic and contemporary deployment of textiles (Julia Bryan-Wilson, Elizabeth Barber). My thesis considers the work of filmmakers who explicitly use the photograph in their films (Jean-Luc Goddard, Harun Farocki), artists working across analogue and digital photography (Simon Starling and Moyra Davey), and practices of undoing (William Pope.L) and puts their work into critical dialogue with my own.

Each chapter of the thesis anchors and informs the three main artworks which I have produced as practice-based research:

**Mean Time** (2020) is a nine-minute film with sound that considers photography as a product of looking at, and thinking about, the world, prefigured on separating or shuttering it – thus questioning the (modern) apprehension of the world as divisible. *Mean Time* suggests that minor forms of photography, such as the postcard, have the potential to access undertheorized and overlooked connections, related to our understanding of historic or global events. The film uses the postcard to reflect on the observer and the camera in motion, mobilised across time zones and other invisible ‘world-making’ lines.

The solo exhibition **Parataxis** (2021) comprises two works; a digital collage, manifest as a limited-edition hand-pulled printed textile titled, *Revolution is a Living Language*, and, *Looking and Being Overlooked*, a silent 20-minute looped video. These works are the result of a commission (from Centre for Research Collections; University of Edinburgh, and the A.G. Leventis Foundation; Greece) to explore the temporal overlap of the Greek Revolution of 1821 with Enlightenment discourse in Edinburgh. *Parataxis* foregrounds female experiences and contributions relative to the exhibition themes by bringing particular ‘overlooked’ figures, symbols, and structures into assembly, in an attempt to conceptually and physically undo dominant narratives and images.

**Apparent Time** (2022) is an 11-minute film with sound, formed from a handful of photographs, footage of the un-doing of a piece of woven fabric, and the erasure of a tattoo. Whereas *Mean Time* uses an array of mass-produced photographic postcards, as visual interdictions and allusions to movements, through acts of travel and scanning, *Apparent Time* focuses attention on static or fixed positions to enable telescopic views of time and events. The film’s central subject is a photograph titled, ‘*Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972*’ taken in Enewetak Atoll, in the Marshal Islands, 20 years after the nuclear device ‘Mike’ was detonated there, completely vaporising the island of Elugelab.
Preface

Although this practice-based PhD has evolved to focus on other objects, it is important to note that my research commenced with a consideration of Marshallese Stick Charts\(^2\) as objects that enabled a form of ‘world-making’ that was ‘undone’ by overlapping processes of colonialism. Stick charts are unique geometric mnemonic devices made from narrow sticks or palm pines that are interlaced and bound together with plant fibres and sometimes cowry shells and coral. Stick Charts were made in order to internalise the knowledge (of wave patterns, winds, and island positions) that it represents. They were produced to aid sea-based navigation across the Marshall Islands, an island nation in the Pacific Ocean comprised of 29 coral atolls and 1,156 islands and islets which form two main island chains. The Marshall Islands constitute a land mass of 70 square miles, although the country itself extends over more than five hundred nautical miles.\(^3\)

As products of situated praxis, Stick Charts were employed, possibly for millennia\(^4\) by select Marshall Islanders\(^5\) as mnemonic tools to enable accurate voyaging across vast distances until a series of imperialist events: waves of colonialism, (starting in 1494 with the Treaty of Tordesillas\(^6\) which vertically divided the globe and its ‘unclaimed lands’ between Portugal and Spain) and then missionary and military occupation culminated in twelve years of intensive nuclear testing in the Marshall Islands by the United States between 1946 and 1958.

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\(^2\) Stick Charts have been documented in texts about the Marshall Islands, such as the essays by Hawai’ian and American missionaries, from the 1860s. Although as anthropologist Joseph Genz has said of these descriptions, their history, meaning, and use have “been riddled with competing interpretations since its first documentation” (2016) Resolving Ambivalence in Marshallese Navigational Relearning, Reinterpreting and Reviving the “Stick Chart” waves models in Structure and Dynamics: Journal of Anthropological and Related Sciences. UC Irvine. William Davenport’s Marshall Island navigational charts in Imago Mundi (1960) and Marshall Islands Cartography (1964) and David Turnbull, Mapping the world in the mind: An investigation of the unwritten knowledge of the Micronesian navigators (1991) address the complex situatedness of Stick Charts and take them seriously as technologies devices but – even though these texts were written a short time after the nuclear testing period – it was not until Marcia Ascher’s Models and maps from the Marshall Islands: A case in ethnomathematics (1995) in Historia Mathematica, 22, (4) pp. 347-370 that Stick Charts and the nuclear events that took place in the Marshall Islands were considered together.


\(^5\) Although many accounts of the use of Stick Charts suggest that only males made and used them, female Marshall Islanders also trained in to make and employ Stick Charts in their voyaging; See J. Genz and M. Ascher.

Fig. 1. Stick chart. British Museum collection. Made pre-1892 this Stick Charts was collected from the Marshall Islands by Admiral Edward Henry Meggs Davis when his ship, the HMS Royalist, was stationed there from 14th April to 30th August 1892. Davis eventually sold this chart to the British Museum in 1904.

Although the use of Stick Charts had been in decline, as the anthropologist Joseph Genz⁷ has said, it was the nuclear testing in the Marshall Islands which effectively erased all future possibilities of Stick Chart creation and use.⁸ I argue that as well as negating forms of cultural material practice the nuclear testing in The Marshall Islands also begat forms of making and material culture such as Kili bags, items discussed in chapters two and three of this thesis.

I have viewed and handled Stick Charts in the British Museum and the Museum of World Culture in Stockholm, Sweden. Although the majority of these were authentic, some were replicas made by museum staff. In these institutions, Stick Charts are habitually hung on a wall, a method of display

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⁷ During a Skype conversation in December 2018 Joseph Genz talked to me about how the navigational school in Rongelap had been the last remaining place in the Marshall Islands where teaching wave piloting through the creation and use of Stick Chart still took place. When the fallout from the Bravo test on the 1st March 1954 was blown over to Rongelap, necessitating the evacuation of its in habitants 2 days later. The situated practice could therefore no longer be undertaken or taught.

⁸ “In an instant, the 1954 Bravo test prevented Isao Eknilang, Lijon Eknilang, Willie Mwekto, and others, then in their early childhood, from continuing their learning of navigation on Rongelap” Joseph Genz (2018) Breaking the Shell University of Hawai’i. p.91
that stresses a visual rather than embodied apprehension of them. As a response to this, I began to experiment with the photographic images of Stick Charts made by these institutions. One experiment consisted of creating a black-and-white copy on paper of an official photograph documenting a Stick Chart (Fig.2) and then destabilising it.

![Fig. 2](image)

**Fig. 2**

Stick Chart from British Museum Collection (pre. 1941. Exact date unknown) ⁹
Dimensions 1.70 x 64 x 58 cm

In the example below, this was undertaken by crushing the paper with the printed image on it; making it somewhat more of an object, insisting on its material presence. The result is a distortion that necessitates a different type of reading. This act of un-doing, which rendered the image of the Stick Chart visually unreadable was an attempt to explore the questions which these particular

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⁹ According to the British Museum acquisition records, this Stick Chart is registered as part of a ‘token’ and as the initial instalment of a subsequent large gift from Harry Geoffrey Beasley (1881–1939), a wealthy collector of Pacific artefacts. Beasley was known to acquire items from missionaries stationed in the Marshall Islands although there are no specific details available regarding the exact date or original location of this Stick Chart.
objects raised in my research between ocular and physical ways of perceiving and engaging with objects, especially objects which are no longer in use but are stored and presented as forms of material culture.

The four images which follow (Fig. 3.a, 3.b, 3.c, 3.d) document the undoing process I describe above; I presented the images themselves as artwork.
Even when the photocopy of the Stick Charts is flattened and returned to an ostensibly surface image, its crumpled nature speaks to un-doing, and continues to problematize the act of looking.

Aware that the making of a replica is a contentious activity, whether as a photographic document or as a model, I began to construct my own versions of the Stick Charts that I had studied. My intention was not to create an artwork to be exhibited or to assume the right to make a copy, but rather I undertook the reproduction of certain Stick Charts as an experimental process of practice-based research, developing methods with which to advance my understanding of the implications of working with Stick Charts (or indeed historical cultural objects in general). This process and the resulting objects and images that it produced helped me to recognise how my research might operate across theory and practice.

Ultimately, making replica Stick Charts led to an impasse in my practice-based research; which I first tried to resolve through un-making and re-assembling their parts. Through this method I reconfigured component parts as signs, readable in relation to both Stick Charts and nuclear culture. By using processes of re-making, un-making and making, I became interested in the potential of these new objects to work as research objects themselves, devices that could connect across different events and temporalities. In one work, *Disarmament*, (fig.6) I took apart a replica chart I had made and manipulated the sticks to make the CND sign. As I did this, I became aware that I was trying to force these bits of matter to ‘say’ what I wanted them to say, to master them. This practice-based experimental enquiry then emphasised mastery as a concern in my research particularly through its relationship to voyaging, colonialism, militarism and, in more subtle terms, by how “ingrained mastery is in the fabric of modern thought”\(^\text{10}\) in our everyday engagements with the world. I came to see un-doing as a way of countering the impulse to master an existing technique or to repeat an action that has already been done.

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During this experimental research in the studio, I also produced works that related to the imposition of external forms of governance on the Marshall Islands. Informed by the structure of Stick Charts, I made these sculptures by tying together pieces of bamboo to manifest different forms. These became signs which spoke of restrictions. One example is the *UN Stick Chart* (fig. 7) that I made in reference to the fact that the testing of nuclear weapons in the Marshall Islands was sanctioned by the United Nations.\(^{11}\) I made another work, *IVY Stick Chart*, (fig. 8) in relation to ‘Operation Ivy’, a series of nuclear tests on Enewetak Atoll in The Marshall Islands in 1952, that included the detonation of

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\(^{11}\) The Trust Territory of the Pacific Islands (TTPI) was a United Nations trust territory in Micronesia that was administered by the United States government from 1947 until 1994. See; the 1946-1947 *Yearbook of the United Nations*, pp. 394-400. Source: https://www.unmultimedia.org/searchers/yearbook/page.jsp?volume=1946-47&bookpage=394
‘Mike’, the world’s first hydrogen bomb. These were spray painted white, both in reference to the radioactive dust which covered Rongelap following the tests at Bikini Atoll and to aestheticise these assemblages of sticks and string as ‘art objects’.

Fig. 7 UN Stick Chart (2019)

Fig. 8 IVY Stick Chart (2019)
I became interested in making work that reflected upon the material preservation of Stick Charts. One approach I took was to embed my replicas in concrete so that, rather than reflecting on what is actually done with such objects, being conserved in a museum or re-made, this work explored the opposite, speculating on what these Stick Charts might have been entangled with if they had remained in the Marshall Islands in 1884. In this experimental test piece, I re-imagined a Stick Chart left in the Marshall Islands, its form functioning as a net, collecting the pieces of concrete left over when the US military-built roads and structures in preparation for WWII and then for nuclear testing. My intention with this piece was to make it unclear whether this chart was taken over by the concrete or emerging from it. As the scholar of Pacific Islands and militarism, Greg Dvorak, writes, the material presence of concrete in the Marshall Islands speaks of the permanence of the militarisation of the country. Dvorak also proposes that the practice of using pieces of coral from atolls, which were purposely blown up (to enable boats to access islands and to expand areas of land to make airstrips) and then regularly added to concrete as an aggregate, should be read as material evidence of a colonising process.\textsuperscript{12}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig9.png}
\caption{Stick Chart (1884) Museum of World Culture, Sweden. Photograph Karen Cunningham}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig10.png}
\caption{Replica Stick Chart with concrete in studio (2019)}
\end{figure}

\textsuperscript{12} Greg Dvorak (2020) \textit{S/pacific Islands: Some Reflections on Identity and Art in Contemporary Oceania} #122
The particular Stick Chart replicated in this experimental work is a grid and, as such, from an occidental viewpoint, connotes culture and science; as we recognise the grid as an “emblem of modernity”. Considered in tandem with the grid, the diagonal sticks create an ‘X’ which aligns this chart with representations of linear perspective; a powerful Eurocentric exemplar of modernity which, though most often discussed in relation to painting and architecture, is deeply connected to both photography and the use of the maritime horizon as the ultimate orientating reference point. As the artist and theorist Hito Steyerl writes, this was key to “enabling colonialism and the spread of a capitalist global market”, themselves explicit forms of world-making.

Following the making and unmaking of replica Stick Charts to create sculptural works, I employed this technique in an experimental video work (Fig.11). Here I filmed a pair of hands unmaking and remaking a Stick Chart against a green screen. Drone footage of the Pacific Ocean was then inserted as the background and a duplicate of the film was made, and its motion reversed. When I edited this together with the original video, the work played on a loop so that the Stick Chart is continuously made and unmade, as the hands on the watch move forwards and backwards.

(The three images below are: Fig.11.a, 11.b, 11.c)

13 Rosalind Krauss (1979) Grids in October Vol 9. (Summer) p.52
14 Hito Steyerl (2012) The Wretched of the Screen. e-flux. p.15
Although Stick Charts were not the final subject of this PhD, they were useful to consider in the early stages of this research. Working with them and their photographic documentation helped me to formulate an approach, which came to include a consideration of photography as a form of world-making, and the photograph as something to be undone. This initial phase of research elucidated for me that there was a connection between the photograph and woven forms in my thinking. It also brought to the fore notions of the copy, the referent, time, and entropy, all of which became important in my research.
Introduction

My PhD research began with my need to understand specific objects that are presented as images\(^{15}\), and images that are also objects.\(^{16}\) These are things that I perceive to be in my way, obstacles that impose themselves between myself and the world; or in Hans Belting’s term, things which are ‘intermedial’.\(^{17}\) The object of my study is usually not in anyone else’s way. It does not stand out as unique or unusual – rather it has often been overlooked – and, if it is given attention, for instance, kept in a collection, it is considered as being ‘minor’\(^{18}\) or innocuous. This often means that it is also an object, or image, which resists neat categorisation – this quality, when seen differently - is replete with potential.

I wanted to explore through practice-based research how contemporary artistic practice can function as a productive site through which to examine the world-making capacity of specific objects and images, by un-doing them. Although the artworks made during my PhD are primarily released as moving image works, I have used intentionally heterogeneous, processes to make them. This has enabled overlapping or paralleling subjects and ideas to be rendered perceptible.

Moving Images

‘Moving image’ is a fluid term that recognises multiple forms of practice, production and display. This includes digital video, film, and installation works, and acknowledges the continued theoretical and artistic effects that technology has on this field. These practices can effectively recalibrate relations between categories such as experimental, documentary, new media, etc. changing how they are made, viewed, and theorised. This way of thinking with, and through, moving image is not new. As the film theorist Noël Carroll wrote in the mid-1990s, film is but one of the “class of things”\(^{19}\) in the category of moving image.

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\(^{15}\) Such as the Marshallese Stick Charts that, when viewed in museum collections are often displayed hung on a wall and behind glass (see fig.9) suggesting that they be considered primarily as objects of visual culture.

\(^{16}\) By this I am drawing attention to the photograph as both an image and as a material thing, an object. As W.J.T Mitchell writes, “…the word image is notoriously ambiguous.” It can refer to an object, a sight or a mental vision and “…as a name for likeness, similitude, resemblance, and analogy it has a quasi-logical status as one of the three great orders of sign formation…” (2005) *What Do Pictures Want?: The Lives and Loves of Images*. University of Chicago Press p.2

\(^{17}\) Hans Belting (2011) *An Anthropology of Images; Picture, Medium, Body*. Princeton University Press

\(^{18}\) The concept of ‘minor’ as it has been used in this PhD is discussed in detail in Chapter One section 1.5 of this thesis.

\(^{19}\) Noël Carroll (1996) *Theorizing the Moving Image*. Cambridge University Press p.49
My moving image works, *Mean Time* and *Apparent Time*, are essay films made primarily from still photographic images; postcards, photographs, and slides. As the film theorist Volker Patenburg writes, “Whenever a film depicts photographs, it says something about its own preconditions. A photograph in a film acts like a flashback in which the medium is projected back onto its history and takes its own background into consideration.”\(^{20}\) Thus when a photograph, postcard, or slide is shown in my moving image work, it evokes questions about that specific form of image making and reproduction as well as thoughts about the subject or ‘image’ that it bares.

The thesis title, *World-making and Un-doing: Looking at minor cultural forms through moving image practice*, uses the term ‘moving image’ as it relates explicitly to my art practice, and it is through practice that this PhD research has been undertaken. As the scholar Erika Balsom, who works at the intersection of art and film, writes, “artists’ moving image now functions as an umbrella term that encompasses the entirety of this diverse field, including what was once known as experimental film”\(^{21}\). Although the use of the term ‘moving image’ may present issues in accounting for works in which there is no movement\(^{22}\), or indeed no image\(^{23}\), its employment in this thesis is necessary in order to locate my work in this ‘diverse field’ of contemporary practice. This does not mean that it is necessarily a term that should be applied to works made by other practitioners but rather that the term emphasises my moving image practice as a mode of research in this PhD.

My artworks here engage with time, as a concept, dimension, and medium which can be registered through materials, events, and experiences. Time is also a subject that I consider explicitly in relation to using the singular ‘still’ image inside of the multiple ‘moving’ images of what we might call film, video, or cinema. Still and moving may appear as oppositional terms; for instance, when, as I discuss, theorists such as Raymond Bellour, argue for time, rather than movement, as the essential element of film. I contend that the term ‘moving image’ is appropriate here for, as Carroll has said, “movement is a permanent possibility”\(^{24}\) in cinematic and video artforms and I employ ‘moving image’ in this wider

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\(^{20}\) Volker Patenburg (2015) *Farocki/Godard: Film as Theory* Amsterdam University Press p.175


\(^{22}\) For example, Chris Marker’s film *La Jetée* (1962) which - with the exception of a brief scene of a woman blinking - is constructed of ‘still’ photographs.

\(^{23}\) Such as Derek Jarman’s *Blue* (1993) in which the screen is an unchanging blue for the entire 1 hour and 9 minutes of the film.

\(^{24}\) Ibid. p.64
sense for the many ways in which artists work with, and between, traditional and nascent practices that use the photographic image - or the idea of it\(^\text{25}\) - to structure our experience of time.

**World-making\(^\text{26}\)**

The term world-making has several possible meanings. The historian Dipesh Chakrabarty, identifies “world-making” as historically constituting acts of colonial mastery that occur “when the planet or the world is, so to speak, brought into being by Europeans”\(^\text{27}\) through the enforced movement of people, resources and cultural objects. According to Chakrabarty, the first bringing ‘into being’ was the discovery of the so-called ‘New World’. This necessitated the re-drawing and re-visualising of maps and led to the first ‘European’ planetary circumnavigation by Portuguese explorer Ferdinand Magellan. This event confirmed the world as a globe, a totality, an object that could be mastered. The second stage of world-making, according to Chakrabarty, was the ‘civilising projects’ of settler colonialism. The final stage is the omnipresence of Western technologically determined globalisation, the networking of the near and far. His interpretation suggests then that the world can be registered as both a phenomenon - something we construct and directly engage with, something that is knowable - and ‘the world’ as an apparently universal term for planet Earth, a thing external to us, something that cannot be fully grasped.

Early concepts and references to world-making, dating from the 17\(^\text{th}\) century describe it as a form of original creation or cosmology.\(^\text{28}\) The historian Ayesha Ramachandran writes that it is in David Hume’s *Dialogues concerning Natural Religion* (1779) that “‘worldmaking’ receives its first

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\(^{25}\) See Derek Jarman’s 79-minute film *Blue* (1993) which evokes image through sounds and with its voiceover narration by Jarman, John Quentin, Nigel Terry, and Tilda Swinton.

\(^{26}\) Although I discuss and explore world-making in the terms described in this thesis and through the works made as practice-based research it is important to note that (in a broad sense) the ideas that I work with overlap with other conceptualisation of world-making and related terms. These include but are not limited to; the concept of colonial ‘worlding’ as proposed by Gayatri Spivak (1985) in *The Rani of Sirmur: An Essay in Reading the Archives History and Theory*, Vol. 24; the ‘deforming’ and ‘re-forming’ processes of worldmaking discussed by José Esteban Muñoz in his essay (1999) *Latina Performance and Queer Worldmaking; or, Chusmería at the End of the Twentieth Century - For Tony in Performing Disidentification as a Practice of Freedom*, University of Minnesota Press; ‘Unworlding’ in relation to conceptual, social and material processes of collapse as theorised by Jack Halberstam, and worldmaking explicitly in relation to filmmaking and feminism as explored in the film theorist Erika Balsom’s book *Feminist Worldmaking and the Moving Image* (2022).


\(^{28}\) Ayesha Ramachandran cites the English cleric Nathaniel Fairfax’s use of the ‘world-maker’ in *A Treatise of the Bulk and Selvedge of the World* (1674), and the mathematician John Keill’s incorporation of the word ‘worldmaking’ in his book *An Examination of Dr Burnet’s Theory of the Earth* (1698) as examples of this.
philosophically deliberate use”. Hume writes “Many worlds might have been botched and bungled, throughout an eternity, ere this system was struck out: much labour lost: many fruitless trials made: and a slow, but continued improvement carried on during infinite ages in the art of world-making.”

Other uses of the term take the world to be a pre-existing entity and define world-making in relation to transformations and translations enacted on the world through forms of human engagement. One definition comes from the philosopher Nelson Goodman who wrote, in 1978, that, “Worldmaking begins with one version and ends with another”. Of significance to me, are the ways and meanings by which such ‘versions’ of the world are apprehended, and how specific objects or images are involved in making these versions perceptible.

My engagement with the idea of world-making began with an attempt to understand the capacity of Stick Charts to enable the maker, who is also the user, to access their locale; their world. As navigational devices Stick Charts enabled movement across vast oceanic space, but unlike a nautical map for instance, these tools were not taken to sea; they themselves were not intended to travel. Now however they have been moved throughout the world, from the Marshall Islands to private and institutional collections across the United States, Australia, Sweden, and Germany. Stick Charts have been made to move by global events and practices of world-making including; colonialism, wars, scientific expeditions and globalisation.

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30 David Hume, Dialogues Concerning Natural Religion, the Posthumous Essays, Of the Immortality of the Soul, and of Suicide, from An Enquiry Concerning Human Understanding of Miracles (Hackett 1986), pp.35–36. As quoted by Ramachandran
32 For an overview of Stick Charts held in museums around the world at the end of the 19th century see Albert Schück’s, Die Stabkarten der Marshall-Insulaner (1902) Hamburg.
Illustrated by the fallout from the Castle Bravo test (Fig.12) nuclear testing in the Marshall Islands\textsuperscript{33} was registered in both a local and a global capacity. The preparation, act, and aftermath of nuclear testing in the Marshall Islands displaced indigenous people from their communities. It undid the situatedness of the maker/user, and the subsequent nuclear radiation rendered many atolls uninhabitable. As anthropologist Joseph Masco writes, these events were “literally an explosive and cosmological practice, a world-making enterprise” that reorganized “how people experience[d] everyday life”.\textsuperscript{34}

\textsuperscript{33} Between 1946 and 1958 the US government conducted 67 nuclear tests in the Marshall Islands as part of the Cold War arms race.

One way to think of world-making then is as a consequence of the enforcement of what the filmmaker and theorist Ariella Aïsha Azoulay refers to as ‘imperial rights’; i.e. the use of technologies in ways that are “not bound by care for existing worlds but rather motivated by the desire to craft new ones”. The technology that Azoulay is concerned with here is photography, which, as John Berger wrote “Within a mere 30 years of its invention as a gadget for an elite, (...) was being used for police filing, war reporting, military reconnaissance, pornography, encyclopaedic documentation, family albums, postcards, anthropological records (often, as with the Indians in the United States, accompanied by genocide), sentimental moralising, inquisitive probing (the wrongly named “candid camera”): aesthetic effects, news reporting, and formal portraiture.”

Photography’s omnipresence and its range of deployment are of particular interest to me and, its entanglement with world-making is vital to consider. As Berger observed, the pervasiveness of photography meant that reading photographs became “part of modern perception itself”. In the first half of the 20th-century photography, by virtue of the fidelity of its mechanical reproduction, the photography essentially “replaced the world as immediate testimony”. Now however we understand this as problematic, and that the creation of the photograph, in making a referent of the thing itself may compromise the integrity of the subject. It may misrepresent the person it depicts or endanger the physical survival of a site because of the very fact that it has been visually reproduced. Similarly, the production of nuclear weapons, as deterrents, and testing them to maintain post-war peace, privileges the potential to make new versions of the world over the preservation of the worlds that already exist. As the monologue in Harun Farocki’s film *Images of the World and the Incription of War* (1989) tells the viewer, “The preserving photograph, the destroying bomb, these two now press together”. The inextricable connection that Farocki identifies between creation and destruction and how these relate to militarism and photography has informed much of this PhD.

**Un-doing**

By considering ‘un-doing’ as a strategy, act, or approach that seeks to disassemble something human-made I have theorised un-doing as both a conceptual and physical technique. Whether in relation to an object or a concept, un-doings intends to stop something from functioning in the manner intended and to reveal what the object is composed of. I developed methods of un-doing specifically in

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36 John Berger (1972) *About Looking* Bloomsbury Publishing p.86
37 Ibid. p.88
38 John Berger (1972) *About Looking* Bloomsbury Publishing p.52
39 Whereas through methods of deconstruction, the structure, text, or theory, or object - we might think here for example of the ‘actual’ chair in Joseph Kosuth’s *One and Three Chairs* (1965) – continues to exist.
relation to photography (photographs themselves, the camera as an apparatus of looking, and photography as a historic medium) and textiles (both those made by hand and by machine).

The art historian Julia Bryan-Wilson writes about the historical importance and political capacity of textiles; including woven fabric, printed textiles, knitted, or knotted threads, and their incorporation in contemporary artworks. In addition to fibre art (which has its own distinct history) she considers how contemporary practitioners use industrially machine-made textiles in their artworks. The African American artist (William) Pope.L’s *Trinket* (2008) was an installation comprised of a monumentally-sized bespoke American flag (approximately 54 x 16 ft) shown hung on a pole, continuously blown (during gallery opening hours) by four industrial fans and lit from underneath by theatre footlights. By the end of the three-month exhibition period, the flag had begun to come apart: to fray and then to rip.

Bryan-Wilson said of the work, “Trinket is a durational event as well as a material artefact – it tatters over time...”40. Significantly, it is the stripes of the flag that undergo the unravelling process; stripes that represent the 13 original British colonies41 and have been part of the American flag design since 1777.42 In Trinket, ‘time’ is present through various registers; the time-span of 238 years since the adoption of the stripes and their unmaking in Trinket, the three-month time-span of the unravelling of the material during the run of the exhibition, the time spent by the viewer looking at the flag, waiting for it to unravel. Importantly, the processes of un-doing in Pope.L’s piece, and in my artworks, are not the consequence of actual wear and tear, of entropy; they are acts of conscious and direct engagement with textiles which, in the case of both Trinket and my printed textile piece Revolution is a Living Language, were made explicitly to be undone.

Sometimes in my practice, I select objects, and images, to work with which I identify as already being undone; that an aspect or feature of them has, materially or conceptually, been taken apart. For example, my film, Movable Type; Under Erasure (2016) reconsiders a photograph that had been undone before my engagement with it. Movable Type; Under Erasure was mainly filmed at Áísínai’pi, in Alberta, Canada. In the language of the Niitsítapi or Blackfeet Nation (the collective name for the First Nations bands that make up the Blackfoot Confederacy or Blackfeet people) who had used the site for generations, Áísínai’pi means ‘it is pictured’ or ‘it is written’. The site is now a national provincial park and has been (re)named ‘Writing-on-Stone’.

The film’s title refers to both the ‘movable type’ of the printing press and to the French philosopher Jacques Derrida’s concept of ‘sous rature’ which he developed in his book Of Grammatology (1967), as Gayatri Chakravorty Spivak observes, from Martin Heidegger’s “strategically important practice” in which Heidegger “crosses out the word ‘Being’ and lets both the deletion and the word stand”.43 It is Spivak, a post-colonial theorist who, as the translator of Of Grammatology in 1976 translated ‘sous rature’ to ‘under erasure’44, and this is one of the reasons why I asked her to voice the monologue for Movable Type; Under Erasure.

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41 The original 13 British colonies in 1783 were Delaware, Pennsylvania, New Jersey, Georgia, Connecticut, Massachusetts, Maryland, South Carolina, New Hampshire, Virginia, New York, North Carolina, and Rhode Island.
42 On the 14th of June 1777 the Continental Congress passed the Flag Act that stated, “That the flag of the United States be made of 13 stripes, alternate red and white; that the union be 13 stars, white in a blue field, representing a new constellation”. Source: Library of Congress. Link: http://memory.loc.gov/cgibin/ampage?collId=lljc&fileName=008/lljc008.db&recNum=90
44 Ibid. p.xiv
When I first contacted Spivak I wrote, “I am asking you to be the speaker in this work because you are the translators’ translator because you are a woman, because this work is about attribution and globalization, because it is about images that speak and words that alter images, because it considers the mechanical printing press, the car, and the camera.” Spivak’s response was that she wanted to speak in her own words, the resulting monologue for *Movable Type; Under Erasure* was then Spivak’s translation of my text and images.

![Still from my film Movable type: Under Erasure (2016)](image)

*Movable type; Under Erasure* featured various forms of communication technology, cultural re-enactment sites, and a specific petroglyph of a car which I first saw on a ‘tourist’ tour of ‘Writing-on-Stone’ in 2009. This image had been identified as ‘graffiti’ and attributed to European settlers until a photograph was discovered in 1998 with the caption ‘Piegan elder, Bird Rattle, carving the automobile petroglyph at Writing-On-Stone on September 14th, 1924’ and the image’s provenance was confirmed.

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45 Personal email with Gayatri Chakravorty Spivak on 21st July 2015.
46 A petroglyph is an image carved or incised onto a stone surface.
47 I had heard of the car petroglyph, but it was not mentioned in any of the tour literature, so I asked the guide, Juanita Tallman, a Blackfoot woman and member of the Blood Tribe (Alberta, Canada) and Blackfeet Tribe (Montana, United States), who worked as an Interpretive Specialist at Writing-On-Stone on (2007-2014) to take me to it.
Piegan is another name for the Piikáni Nation who, until the 1870s, lived on and across both sides of what is now the US and Canadian border (the line) between the state of Montana and the province of Alberta. As Juanita Tallman, the interpretive specialist at the site, told me the Niitsítapi Blackfoot, whose ancestors are members of the Kainai, Piikáni, and Siksika nations, are known to have passed through the site and to make carvings that record vision quests and commemorate significant events.48

Through emails with Canadian archaeologist Michael Klassen, I learned how this specific photograph had affected the reading of the petroglyph. After Klassen recorded the car petroglyph panel in 1992 in field notes, he shared these with the noted Blackfoot art historian Ted Brasser who then proposed that the car petroglyphs (there were two carvings depicting cars) were indigenous in origin. When the photograph of Bird Rattle carving the petroglyph was found in an archive at the Smithsonian Institute, by anthropologist Larry Loendorf in 1998, the specific attribution and date of the petroglyph was then confirmed.

The photograph, and its caption, then elevated the reading of the carving from a work of vandalism to a historically significant image: the last petroglyph to be made at the site by a First Nations person. The rediscovery of this photograph in the Smithsonian archives can then be regarded as leading to the ‘un-doing’ of the carving as a work of graffiti. Subsequently, this photograph appeared in books that undertook the re-telling (re-imagining) of the site.

I filmed this petroglyph at the site in 2014 and after watching my footage, I became interested in the discovery of the photograph and its attribution. In 2015, after much digging (by proxy) in the Smithsonian archives, I found a photocopy of the original photograph of Bird Rattle in 1924. Although, as a scanned and printed image, this reproduction was a ‘poor copy’, it provided me with new information. It showed the photograph before it was ‘un-done’ by an act of re-framing. In her book, The Wretched of the Screen (2012) Hito Steyerl says that “The poor image is a copy in motion” and that “Only digital technology could produce such a dilapidated image...”. These ‘minor’ images are important though because, as Steyerl observes, the “poor images show the rare, the obvious, and the unbelievable...” 49

48 These carvings are dated from approximately 500 BCE until the mid-19th century when the use of indigenous land to station mounted police and the enactment of the Indian Act in 1876 restricted the traditional nomadic lifestyle of the Blackfoot and ultimately resulted in indigenous people, such as Bird Rattle, living on reservations.
Unlike the other reproductions of the same photograph which I had found, this photocopy was not cropped; it included the shadow of the photographer, “a European, in a hat”.\textsuperscript{50} I re-photographed this ‘original’ with an iPhone, a technology indicative of the time of the film production, and then filmed the phone itself as a hand interacts with its screen, revealing the shadow in the original image. When inserted into my film, Movable Type; Under Erasure, the changing forms and technologies of the ‘camera’ are demonstrated, whilst the original photograph is revived and offered as an affective witness.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{mobile_phone_with_postcard.png}
\caption{Still from my film Movable type: Under Erasure (2016)}
\end{figure}

\textbf{Scale}

Concepts of scale came to inform my research; from the tiny radioactive particle to the spectacle of giant nuclear mushroom clouds; from the instant violence of the explosion to the \textit{slow violence} of nuclear radiation unfolding over 30,000 years; and the reduction of a place, to a handheld image in form of the postcard, an ideal object to use in the consideration of scale as well as proximity and distance. Although Rob Nixon uses the term ‘slow violence’ to describe “a violence that is neither spectacular nor instantaneous, but rather incremental and accretive”, he also states that this violence plays out “across a range of temporal scales”\textsuperscript{51}. We may then read the violence of the nuclear explosion as both instant and endless.

\begin{flushleft}
\textsuperscript{50} Gayatri Chakravorty Spivak. Monologue from Movable Type; Under Erasure (2016)
\textsuperscript{51} Rob Nixon (2011) Slow Violence and the Environmentalism of the Poor Harvard University Press p.2
\end{flushleft}
Scale relates to photography in broad terms by enabling a new way to ‘document’ the world photography also enabled a new way to measure it. How one thing is measured against another, Chakrabarty asserts, is a Eurocentric device involved with how political, social, and environmental events are perceived. Scale is then a vital element of world-making.

In his essay, *Reality Would Have to Begin* (1988) the filmmaker Harun Farocki discusses the story of a young architect, Albrecht Meydenbauer, who nearly fell to his death taking measurements of a cathedral in 1858. Meydenbauer then realised the potential of the camera to make photographs that could be used for accurate scale measurements, without endangering the measurer through the application of geometry. After he published this idea, the Prussian military financed the development of photogrammetry, wherein the camera functions as a measuring device. This, says Farocki, was because the military explicitly understood the potential applications of employing scale in combination with photographic practices; that it created “the possibility of capturing objects and spaces at a distance.” Using the photograph as a tool for measuring scale – and deploying the camera in place of the person – also happened in the documentation of nuclear testing in the Marshall Islands as the hazardous nature of the photographs subject meant that many photographs were taken using a shutter release extension or a timer.

Gabrielle Hecht, Professor of Nuclear Security and History, writes that “scale is not just about size or granularity. It is also about categories: what they reveal or hide”. Ideas of scale, I argue, are also the outcomes of social, cultural, and technopolitical processes, which relate to how conceptually and visually the world is made and un-made. ‘Scales’ says Hecht, “are emergent rather than eternal.” ... “They do work in the world. They are performative. Scale is messy because it is both a category of analysis and a category of practice”. Working with scale as a conceptual and visual device in this project has stimulated new ways of engaging with the objects and images I have researched by enabling them to be read differently and making their materiality perceptible.

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53 At Bikini Atoll alone over 50,000 photographs were taken and 1,500,000 feet (460,000 m) of motion picture film was shot. One of the cameras could shoot at a rate of 1,000 frames per second. See *Operation Crossroads, the official pictorial record* (1946) by United States Joint Task Force One. W.H. Wise & Co. p.9
55 Ibid. p.114
Particular to Hecht’s proposal is the concept of the ‘interscalar’; a category that operates between things or between different sizes or quantities. Hecht developed the term ‘interscalar vehicles’ to describe things, objects, and images, which can be used as scientific or military tools of analysis. According to Hecht, interscalar vehicles are “historical actors – such as maps and photographs; warning signs; atomic bombs, which have political, ethical, epistemological, and/or affective dimensions”.  

What makes something an interscalar vehicle for Hecht is not intrinsic to its design but lies rather in “its deployment and uptake, its potential to make political claims, craft social relationships, or simply open our imaginations”. This difference which Hecht discerns between something’s design and how it is used also illustrates a distinction between the practices of design and art. For example, by using a thing contra to its intention (its design), the artwork can turn objects and images into interscalar vehicles. The objects of my study, postcards, photographs, and particular woven items operate in this way, and in doing so they mediate between the singular human form and global events.

The concept of the interscalar vehicle is not limited to indexing the nuclear. As the artist and theorist Susan Schuppli observes, the mediating ability of the interscalar vehicle can be witnessed in Harun Farocki’s *Inextinguishable Fire* (1969), a film about the un-representability of the Vietnam War. In one scene Farocki sits at a table facing the camera, while a voiceover asks, “how can we show you the deployment of napalm and the nature of the burns it causes?”. The camera filming Farocki then moves in closer and re-frames the shot in order to crop out his face, as he ‘extinguishes’ a cigarette on his arm. As Farocki methodically, and quite slowly, undertakes this ‘performance to camera’, the voice-over tells us that, while a cigarette burns at approximately 500 degrees Celsius, napalm burns at 3,000 degrees Celsius. Schuppli observes that, in this context, the cigarette acts as an interscalar vehicle for the napalm bomb. I argue, however, that as the cigarette is already associated with death as an interscalar vehicle it enforces what was already known, rather than revealing what could not otherwise be perceived. More interesting to me are objects and images that ‘mask’ their connections to the military-industrial complex (of which nuclear weapons are part) and how to unmask them; how to make their genealogies and linkages perceptible by (re) deploying them through artistic practice.

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56 Ibid. p.115  
57 Ibid.  
58 At a Nuclear Culture Research Group event in 2019 held at Goldsmiths, London.
I took up Hecht’s concept of the ‘interscalar’, in conjunction with ‘militourism’, as a means by which to begin to conceptually and visually mediate between historic world-making events and innocuous objects and images. The moving image work, which in one shot, or even a single frame, enables the viewer to comprehend and view a multiplicity of scales and viewpoints emerged as my ideal medium with which to address these concerns.

In the analysis which follows each chapter discusses one work. I present these chapters in chronological order, relative to the completion of each artwork, although the production of the works has physically and theoretically overlapped, and they have each actively informed each other throughout the duration of the PhD.

Chapter 1: Mean Time

I begin chapter one by describing how Mean Time came to be made and situating the film in relation to its primary source materials. Then I analyse how items of minor photography, in the form of the photographic postcard, are (re)activated in this film, and in the work Another Just Past (also made during the residency with Collective in 2020), which comprised a series of four digitally collaged postcards; made from existing postcards. In describing the production of the film Mean Time I engage with the replica or copy as both a concept and as a mechanically produced thing in the world. World-making and Un-doing are considered in relation to invisible lines, material manifestations of the copy, acts of observation, and how these might be undone. I analyse the minor photograph and its relationships to technology, travel, colonialism, and the concept of global time and consider the use of photographic objects in moving image practice, both my own and that of other contemporary artists.

Chapter 2: Parataxis

In this chapter, I explore and analyses how, in addition to forms of minor photography my research engaged with woven objects related to travel and tourism. I consider how images of war and militarism have been manifest in (and transposed between) weaving, printed textiles, and the photograph as distinct forms of image-making. I look at the potential of woven items to function as both documents of historical events and forms of resistance. I discuss the works that I made for the solo exhibition Parataxis (2021) - the results of a commission to create an artwork exploring the temporal overlap of the Greek Revolution of 1821 with Enlightenment discourse in Edinburgh - in relation to the works by contemporary artists using textiles and collage. Parataxis; a digital collage
produced as a limited-edition printed textile entitled *Revolution is a Living Language* and *Looking and Being Overlooked* (a silent 20-minute looped video) foregrounds female experiences by bringing particular ‘overlooked’ figures, symbols, and structures into assembly in an attempt to conceptually and physically undo dominant narratives and images.

**Chapter 3: Apparent Time**

This final chapter of the thesis gathers and hones the specific subjects discussed in the previous chapters, including minor photography, travel, and woven items, and considers specific objects and images which exist (or no longer exist), because of specific historical events. I discuss time in relation to photography and sound and how these are thought together in *Apparent Time*, an 11-minute film that takes as its main subject a photographic image titled ‘*Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972*’ which was taken in Enewetak Atoll 20 years after the nuclear device ‘Mike’ was detonated, completely vaporising the island of Elugelab.

As the production of moving image works became my dominant mode of artistic research during my PhD, in making these films, I also used it to record the research as it was happening. My film works (*Mean Time*, *Looking and Being Overlooked*, and *Apparent Time*) can then be read as a record of what has worked; what has been successful. During the production of these artworks, several questions arose which propelled the work and research forward, such as; how can moving image works explore the material histories of objects in ways that other mediums cannot? and how can objects from one discipline, such as textiles, speak to, or expanded upon, the theory of another, in this case, film or photography?
Methodology

The art historian Linda Nochlin describes her approach to research and writing as “a form of initiatory bricolage” which she uses to construct a “methodological scaffolding – open to change but consistently engaged”. This method of combining ideas and forms from diverse sources, admitting many things in order to build a framework, chimes with my mode of research. Nochlin’s concept of the ‘methodological scaffold’ is also useful in thinking through the co-dependent relationship between my thesis and the artworks I have produced. For instance, in how the production of the writing and the artworks act to support and stabilise each other. However, rather than a form of bricolage (which takes whatever is at hand; what is accessible, and what is otherwise unused and discarded), my own method is more akin to collage. Rather than making do with what is readily available, I seek out specific ideas, objects, and images in order to remove them from their original contexts so that I might consider them more closely. I reframe, reorder, and resize these images and objects and present them in new ways, bringing them together on a different plane to form a novel image that can communicate a concept that is not otherwise already available.

I use ‘world-making’ and ‘un-doing’ as both themes and methodological approaches and contextualise them in regard to specific theoretical frameworks and artistic practices. These include an analysis of photographic works by Moyra Davey, which use “minor” objects of culture, in the form of 1 cent coins; Uriel Orlow’s concept of ‘archival thinking’ regarding artist’s use of existing photographic images; collage as methods of critical undoing and re-imagining; and the theory of suture in relation to filmmaking. I also reflect on formative artworks from my own practice in order to provide an expanded view of the subjects I have worked with, as well as the methodologies I developed as practice-based research.

In my art practice, I consider overlooked or ‘minor’ objects and photographic images, whose production and ontology, I argue, are entangled in processes of ‘world-making’ and ‘un-doing’. Although materially diverse and produced in distinct eras (the turn of the 19th century, during WWII, and the period of the Cold War), the sources I draw upon are connected primarily through their

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59 The anthropologist Claude Lévi-Strauss formulates a theory of bricolage in his book The Savage Mind (1962. Trans. 1966) in which he proposed the bricoleur as one who makes do as the opposite of the engineer or craftsman who uses pre-existing tools or knowledge. Lévi-Strauss writes that the bricoleurs means are “defined only by its potential use” Claude Lévi-Strauss (1962. Trans.1966) The Savage Mind Weidenfeld and Nicolson. pp.17-18

relationships to travel and militarism. Where relevant, then, I summarise my reading on militarism as a system that privileges the continued maintenance of military capability in social, economic, and cultural relations.\(^{61}\)

In undertaking a practice-based, a balance has to be struck between the production of artworks, undertaking research, and the writing of the thesis. I have come to understand these elements must be in constant dialogue, sometimes in conversation, sometimes in dispute, in order for them to function. Doctoral research necessarily demands reflexivity and objectivity; also, especially in practice-based research, to progress the work, intuition is involved, indeed necessary. This does not mean that methods or actions are undertaken frivolously, but rather that the connection of the theoretical research to the art practice was not always obvious to me at the time, and correlations were initially latent rather than apparent. In the writing of this thesis, I am able to trace the lineages and genealogies of my thinking, researching, reading and decision-making.

The artist Moyra Davey discusses the importance of reading in relation to the act of writing. Davey says that for her, reading “is tied to productivity, to making something. Reading becomes part of a generative creative game of taking in and putting out”.\(^{62}\) Thinking about reading in this way has stimulated both my writing and my art-making practices. In relation to writing by artists including Davey, and by theorists such as Roland Barthes, I see them expose within their writing’s elements of their own process and thinking. Reading their writing on their own doubts and confusions, as well as their revelations, not only informed my use of theoretical texts, it stimulated my creative practice to continue, even when the process I was undertaking seemed unclear, even to me.

The problems posed by the relationship between the demands of the thesis and practice are acknowledged by the media theorist and historian, Charlie Gere. In the introduction to his PhD thesis,

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\(^{61}\) Jean Drèze describes militarism as “the propensity to use military power, or the threat of it, for political settlements (...) the latter encompasses arms races, nuclear brinkmanship and related issues.” (2000) Militarism, Development and Democracy in Economic and Political Weekly, 35 (14), pp. 1171–1183
http://www.jstor.org/stable/4409112 p.1172

Kjell Skjelsbæk writes, “The term militarism is used extensively for both analytical and propagandistic purposes, serving as a label for a many different phenomena. In the Western, liberal tradition, most authors emphasize the notion of excess (military spending, warfare, etc.), within the Marxist tradition, militarism is seen as linked to imperialism and monopoly capitalism.” (1979) Militarism, Its Dimensions and Corollaries: An Attempt at Conceptual Clarification, in Journal of Peace Research, 16 (3), pp.213–229. p.213

The military scholar Lawrence Radway said that, “Militarism is a doctrine or system that values war and accords primacy in state and society to the armed forces. It exalts a function - the application of violence - and an institutional structure - the military establishment. It implies both a policy orientation and a power relationship.” (1968) International Encyclopaedia of the Social Sciences. Vol 10, p.300

\(^{62}\) Moyra Davey (2020) Index Cards: Selected Essays New Directions. p.222
Gere wrote that overcoming the issues inherent in ‘writing’ practice-based research into the text of the thesis is often “a problem of authorial voice”, a voice which one may possess in a certain discipline or field but not necessarily in another. To address this ‘problem’ in my PhD I explored material possibilities and theoretical speculations in the artworks and used the written text as a conceptual framework through which I reflect on how these works were formed, informed, and how they may be potentially received by the viewer.

The artworks made were predominantly realised as moving image works, but my practice, in a broader sense, is interdisciplinary. This is because the works produced are not limited to a single medium and also because the practice is not thought through a single discipline. Rather is informed by, and thought in relation to multiple disciplines, including anthropology, philosophy, and history. The social and cultural historian Joe Moran wrote that interdisciplinary work is “always transformative in some way”. I take this to suggest that, beyond the creation of new artworks, an interdisciplinary mode of practice, perhaps more so than practice located in a single medium, has the capacity to physically and/or conceptually affect the disciplines with which it works. A value of interdisciplinary work and practice then is how it actively acknowledges the existence and categorisation of distinct disciplines, as well as their histories and polemics.

**Intertext**

Shortly after completing my degree in photography, I took a self-imposed ‘break’ from the medium. I had just started my MFA, and I was frustrated, not by the photographs that I was taking, but by the fact that every idea, thought, or question that I wanted to address resolved itself to be answerable as a photograph. More than wanting to cease the act of taking photographs - I wanted to stop thinking about or through photographs. This was also the first point in my practice when I had a studio, and so I was intent on using this space to ‘make things’. However, no sooner had I begun to make things; sculptures, installations, drawings, and so on, I realised these had to be documented in photographs.

At this point in time, in the early 2000s, the digital and analogue were, for me, still very much separate ways of working which did not consciously overlap in my thinking or making. I would take photographs on film with an analogue camera, and make moving image works digitally with a video camera. This conceptual and technological divide initiated an issue for me in my practice.

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In many ways, this PhD has been for me a return to photography, as well as an attempt to articulate my resistance to it. I have come to understand that I actually did not want to stop thinking with photography, but rather that I wanted to think differently, or ‘otherly’ with it; to work with it prosthetically. The artist Charlotte Prodger speaks of the camera as a prosthetic tool in her practice and uses ubiquitous image recording devices, such as the iPhone, which she describes as functioning as an extension of her body.65 Whereas Prodger is interested in the iPhone as a camera/recorder employed as a prosthetic of the body, I am interested in devices which extend ways of seeing (pinhole sheeting, camera obscuras’, lenses, and telescopes) and devices which enhance means of recording (digital zooms, macro lenses, and scanners), and how these act prosthetically on my thinking.

In this PhD, I have used practice-based research as a means through which to develop and test ways of working relevant to the objects of my research - minor objects and images - and to my specific way of thinking with them, as overlooked forms of material culture.

A “minor” case study

In speaking of some of the artworks by, and the practice of, the Canadian artist and writer Moyra Davey I present a brief case study with which to contextualise the methods of practice-based research which I have used in my PhD. I selected Davey, who works with photography across, and between, analogue and digital practices, in part because of her interest in redeploying “minor” objects of material culture in the world. The examples I discuss here elucidate how this aspect of both Davey’s and my practice enables a critical way of looking differently at existing images, objects, and processes.

I also refer to Davey’s work and practice because she is a woman from an economically and socially similar background to myself; a condition which I argue informs decisions and approaches within both of our practices. I also choose Davey because (as I discuss in this thesis), like myself, she often engages with ‘major’ works and texts produced by men who are acknowledged as prominent in their field. Davey does this by analysing these works and their authors, and simultaneously, critically aligning her practice and her work with theirs.

One of Davey’s methods is to send images and objects back into the world as a form of (re)deployment or mobilisation. The word ‘deployment’ stems from the Latin ‘de-plicáre’ meaning to

65 See for example Charlotte Prodger’s moving image work BRIDGIT (2016)
‘un-fold’. As I discuss below deployment and unfolding are key actions in Davey’s photographic practice: these actions also relate to processes of undoing used in this thesis and artworks.

Moyra Davey works across photograph, text, and film, and in each of her works, one or more of these media of communication and recording either overlap with or are presented as analogous to, the other. Her practice can broadly be viewed as an exploration of relationships and dependencies between image and text (written or spoken), and more explicitly how these can be registered in the photograph. Equivalences are abound in her works, whether between her own writing and the predominantly text-based sources which she draws on or between the personal and public (domestic and social) worlds, the surfaces and structures which she documents. Several times during the production of my artworks I have found myself thinking about Davey, about specific artworks, and about her process which, like my own, is often frenetic in character, and seems to continually lead from, or to, photography, and its inextricable connection to temporality.

Davey started what would become her series Copperhead (1990 - ongoing) in 1980. She photographed one hundred 1 cent coins that she had found in the street, she also kept these coins and so the act of incorporating them - or rather their image - into an artwork results in the coins being taken out of circulation; it arrests them and elevates them to a new cultural and economic value. Although the work was made during a period of economic recession in the United States, Davey does not want Copperhead to refer to a financial crisis, rather, she locates it in relation to psychoanalysis, and in particular Sigmund Freud’s theory of the equivalent value of money and faeces in the unconscious, the tension between what is/should be worthless and thus expelled, thrown away, and what is/should be of value to us and thus kept, or saved.

66 “‘Copperhead’ was the name given to the so-called Peace Democrats who opposed the North’s use of war to reunite the sundered nation.” George Baker (2010) The Absent Photograph in the catalogue for the exhibition Moyra Davey: Speaker Receiver. Kunsthalle Basel. Sternberg Press. p.67
67 In his article, On Transformations of Instinct as Exemplified in Anal Erotism (1917c), Freud hypothesized that defecation provides an infant with the first object that it has made and that the child’s “interest in faeces” may in adult life be “continued partly as interest in money”. p.126. Sigmund Freud, On Transformations of Instinct as Exemplified in Anal Eroticism, in The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XVII, London, Published by The Hogarth Press and The Institute of Psychoanalysis (1955) pp.125-134.
68 Moyra Davey, artists’ talk at Ryerson University, Toronto, Canada. May 2008
Link: https://www.youtube.com/watch?v=dzsLh7_5nK8
Coins, like postcards, are made to circulate, to move between people and places. In doing so, they become records of their journeys, registering physical interactions as different types of marks are made on them. Sometimes these are indentations caused by other coins pressing against them, or by exposure to weather, or to substances that break down their surface, eventually patinating it. Davey only photographed the obverse or ‘heads’ side of these coins; which features the 16th President of the United States, Abraham Lincoln. Lincoln is presented on the coin in absolute profile, a miniature portrait on the smallest denomination of American currency. Davey’s photographs crop the circular form of the coin and enlarge it to a 20 x 24-inch print. In these early versions of the series, Davey’s reframing crops out much of the text on the coins and omits the phrase ‘IN GOD WE TRUST’ set in an arc above Lincoln’s head, as well as the word ‘liberty’ and the year of each particular coin’s minting. These actions then draw attention to the 1864 ‘original’ photograph or referent.

69 ‘IN GOD WE TRUST’ was first used on US currency on the short-lived 2 cent coin, later bill was passed by the U.S. Congress on the 3rd March 1865 which allowed "In God We Trust" to be inscribed on all US coins. This bill was the last Act of Congress which Lincoln signed before he was assassinated on the 14th April that year.
In 2006, Davey began to send her photographic prints through the postal system to friends and curators, putting the coins (or rather their images) back into circulation, and (re)deploying them. Rather than packaging them as artworks she folded individual photographs down to the dimensions of an envelope, affixed a stamp, and fastened it with coloured tape. Like the Lincoln 1 cent coins, these objects became sites on which the traces of their travel accumulated, this time in the form of smudged ink stamps, stains, and tears. Once received, these photographs were translated back into artworks - from objects that moved around the world to static images - when they were carefully unfolded and exhibited in the shape of a grid on the clean white walls of the contemporary art gallery.

The photographer is credited as Berger. The photograph is held in the Mathew Brady Gallery, Library of Congress. Washington D.C. USA.
Davey’s ‘mailer works’ acknowledge folding, sending, and returning as a part of their production process, with the coloured tape and stamps functioning as formal or aesthetic devices in the presentation of the final artwork. In more recent versions, Davey has returned to and expanded on the *Copperhead* photograph series. In the recent version (*Copperheads* 2008-) the coins are cropped differently, and some photographs include parts of the text (see images below). In these versions, the tape affixed to the photographs looks like glitches, or ‘digital artifacts’,\(^{71}\) unintended blocks of coloured pixels caused by a digital error. As Davey intentionally sends images as physical objects and thus resists the ease of sending them digitally and instantly, these manifestations of *Copperhead* can be seen as comments on the overlapping of the digital and the analogue; when they are put into circulation, sent into and across the world, they both succumb to damage and deterioration – in short, to entropy. Davey’s gathering and photographing of ‘minor’ objects of material culture was useful to me whilst developing my thinking on my collecting photographic postcards, particularly in regard to how they can function as tokens; small visible or tangible representations of larger places and ideas.

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\(^{71}\) Digital artifacts are flaws in a reproduction or recording often caused by the digital file becoming corrupted.
Practice-based research and the object of study

Like Davey, people are seldomly the explicit subject of my artworks, yet both Davey’s and my works are concerned with what people do; what actions they carry out in the world and the resulting images in which these events are registered. My artworks privilege artefacts and existing photographic images; formations of technology, and matter, which are used as both the subject and source material. My works explore these images and objects as sites through which the past (in the form of history) communes with the present. In deciding on my object (or image) of study beyond any

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72 In Confessions, the final essay in her book Index Cards: Selected Essays (2020) Davey recollects how, as a child, one day at school, she realised she had lost a pencil given to her by her mother, and she began to cry – her teacher asked her, ‘Why do you grieve for a pencil?’. Perceiving meaning within a trivial ‘minor’ object; the need to share the intensity of this connection, and thus to propose its universality, are defining aspects of Davey’s work and my own.
aesthetic pull that it has for me to work with through artistic practice, I must also believe in its relevance, that although not currently available on the surface, this image or object is of consequence, that in some way I can use it as a key.

If we take research to mean, at its most rudimentary level, looking again, because the object or image is something that I return to and view again and again, this basic process of returning is in itself a critical act. Yet, no matter how many times I return to an object (a postcard, a woven bag, a watch) some aspect of it remains inaccessible to me. This is part of its allure and relates to the lacunae I perceive between myself and the image or object because it is far away in time or physically distant, perhaps held in an archive on the other side of the world. Sometimes it is because it is rare, and I do not have the means to access it. At this stage, I perceive my research as practice because this is the point that I become less interested in what the image or object ‘is’ and more interested in what it ‘does’ or what it can do; what is speculative about it or what is immanent within it.

The artist and writer Uriel Orlow has identified three general approaches among contemporary artists working in moving image practices who use existing photographic images, from formal or informal archives and collections, to make new artworks. First, there is the ‘archive user’ who draws on, often large-scale and established, institutional archives to work with specific historic themes in order to produce works which are best described as documentary in form. Second, the ‘archive maker’ addresses the supposed authority of the archive and its lack, by creating fictional archives as artworks. Lastly, there is the ‘archive thinker’, who uses images whose position in a collection is unfixed, either because the archive itself is excessively informal (such as a temporary or personal collection or an independent online archive) or because its historical significance has not yet been articulated. In this way, the ‘archive thinker’ works with an awareness of the role of the archive as something which is ‘latent’. Orlow’s notion of ‘archival thinking’ is useful in describing my approach to locating and using images, documents, and objects; in ways that are speculative and, at times, irreverent. I consider my approach as a method of thinking and working in parallel to the existence of the archive rather than through it.

After choosing to return again, and again, to certain photographs and objects, more consciously, my next step is to read about, and around, the image or object in question. Through this process, I am often led towards a specific discipline: anthropology, photography, or post-colonialism, which seems

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to want to claim the object as its own. My task then, it seems, is to recognise, interrogate and unfold my chosen image or object, through the ways in which it exceeds these disciplinary categories. I undertake this task by ‘un-doing’ it, taking it apart physically and theoretically and placing it in dialogue with other things, re-presenting it through a different medium. For instance, in Parataxis I re-presented photographs in a printed textile, and then filmed and represented this as a digital video whilst in Mean Time and Apparent Time, this translation from one medium to another, is primarily located in the filming of photographs and the re-presenting of them in my moving images works.

Collage

One reason that I use existing ‘minor’ (i.e. mass produced, not fine art) photographic images in my work is that I am interested in the act of re-deployment, of pulling them out of their marginal status and then putting them back into the world. Before I do this, I place these images into new arrangements and dialogues, primarily through processes of collage.

As a system or method, collage fosters processes of critical reimagining, and by its use of existing objects and images, it invokes a collective engagement with this reimagining. Just as the act of collecting, as Walter Benjamin observed, liberates objects from their utility, the act of collage liberates images from the collection or archive, and thus also from the categories which are employed to subsume them. The transparent logic of the collage focuses the viewers’ attention on the production of the artwork. It does not hide the fact that images, forms, or words have been admitted from various sources and that these are not brought together in a manner that attempts to obscure any difference between the constituent parts, but rather to heighten this difference. In this way, collage, whether in the form of photomontage, literary text, or moving image work, seeks to equate its construction with its content. This mode of enquiry, of seeking out images, objects, and documents explicitly in order to dislodge them, involves thinking and looking against the grain and approaching sources contra to the dominant ways in which the particular object of study has previously been considered.

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74 Benjamin proposed that the “object be dissociated from all its original function in order to enter into the closest possible relationships with its equivalent. This is the diametric opposite of use and stands under the curious category of completeness”. Walter Benjamin (1973) Illuminations, Fontana Press. p.41
Nochlin’s concept of “thinking art history Otherly”, in which she uses feminism “both as theory and as politics” to provide her with “a vantage point of Otherness”\(^{75}\) is also relevant in describing my process and the resulting artworks. Although formulated through a feminist critique of the political dimension of art history, I suggest that Nochlin’s ‘thinking Otherly’, which overtly “displaces, repositions, and transforms”\(^{76}\) the object of study, is what is happening in my project and that it is a form of collage thinking. Collage is a particularly useful methodology to me due to its speculative, as opposed to affirmative or factual, nature. As Benjamin and others\(^{77}\) have observed, collage is characteristically allegorical, which is to say that the meaning of the work is not determined by the individual parts that is composed of, but rather by the act of joining them together, putting them into unison and representing them as a unit in relation to the world. Apprehended through these concepts of collage, my artworks submitted here are idiosyncratic and make visible processes of creative play, or aesthetic trials. With them, I seek an equivalence between the formal aspects of the work of art and its meaning.

Inherently anachronic, by ramifying timelines and linear narratives, the collage proposes that the thing it wants to talk about is not representable in a single form or existing image. The collage, therefore, problematizes the experience of the viewer (or reader), and in doing so reorganises our act of looking and thinking. It pushes dominant images and ideas to the borders and takes marginal representations and centralises them. For the art theorist Rosalind Krauss, the collage is a work that “enters our experience not as an object of perception, but as an object of discourse”;\(^{78}\) it demands our engagement and makes us responsible for our ability (or inability) to read it.

**Essay Film**

As an artist, I choose the essay film as a form in which my research and practice can be synthesised. In *The Essay as Form* Theodor Adorno discusses the essay as a text - rather than as a film or visual form – and refers (or defers) to sight in his argument, writing that the essay is “concerned with what is blind within its objects”.\(^{79}\) The idea of conceptual blindness is interesting to me, relating as it does to


\(^{76}\) Ibid. p.16


\(^{78}\) Rosalind Krauss (1981), In the Name of Picasso October, Vol. 16, Spring Art World Follies. p.20

the idea of the oversight and the overlooked. For Adorno, the issue with the essay, the problem with it being taken seriously as a contribution to culture, is that it does not attempt to manifest a masterwork, for the “essay is always directed towards something already created”, and therefore it “does not present itself as creation”.80

Collage can also be thought about in this way. Rather than being concerned primarily with creation - with crafting a new thing in the world - both the collage and the essay take as their subject and source materials existing images, forms, and ideas and removes them from their given context, and presents them anew.

The ability of the essay film to oscillate between being a creation itself and, at the same time, existing as a space in which other works or creations are addressed, is precisely why I have used it in this PhD. As Hans Richter observes, in the essay film, the artist “… is not bound by the depicting of external phenomena and the constructs of chronological sequences, but, on the contrary, has to enlist material from everywhere…”81 I have taken up this approach in my use of methods of collage, both in terms of the structure and aesthetic of the films I have made because it enables them to “switch from objective representation to fantastic allegory and from there to a staged scene”;82 a necessary manoeuvre in works that operate across multiple timelines, and which combine fact with speculation.

**Monologue**

The employment of a monologue is an established form of address in works located under the umbrella of the ‘essay film’ which itself can also incorporate forms of documentary, for instance in Trinh T. Minh-ha’s *Reassemblage* (1982), and in artist moving image works, such as Hito Steyerl’s *How Not to be Seen: A Fucking Didactic Educational .MOV File* (2013). As examples of divergent approaches to monologue Minh-ha’s intimate ‘speaking nearby’ in *Reassemblage* is performed by the filmmaker herself, for whom English is a second language, whilst Steyerl’s *How Not to be Seen: A Fucking Didactic Educational .MOV File* employs (what sounds like) a computer-generated male voice, with a discernibly English accent. What is interesting for me is that both of these works put the idea of the monologue, of the singular speaking subject, under scrutiny.

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80 Ibid. p.75  
82 Ibid.
The monologues for my films Mean Time and Apparent Time were written at the same time as the films were being made. This often meant that I would record a version of the monologue directly onto the audio track during the edit in order to combine my thinking with my sources. Sometimes I would write notes to myself after watching a segment I had made, or after looking at one of the photographs used in the films for an extended period of time; letting keywords and phrases form sentences in my mind. This method of self-reference, which intends to ramify the role of subjectivity in critical thinking, is akin to Davey’s process (and performance) especially in her work Notes on Blue\(^{83}\) in which she films herself reciting her own notes (that she has already recorded) and which she listens to as she talks out loud, pacing around her apartment. In the film, Davey weaves together references to her previous artworks (some of which remain unfinished) her health (she went blind in one eye\(^{84}\) shortly before making the film), and anecdotal details of the personal lives of writers and filmmakers including Mary Wollstonecraft and Rainer Fassbinder, as well as reflections on working between analogue and digital, film and photography.

**Suture**

The specificity of how things are joined together, whether presented one after another or side by side, is manifest in the idea of the ‘suture’\(^ {85}\); a term which originated with the psychoanalyst Jacques-Alain Miller who wrote that “Suture names the relation of the subject to the chain of its discourse”, and is “the general relation of lack to the structure – of which it is an element, inasmuch as it implies the position of a taking-the-place-of”\(^ {86}\). In this way, we might consider suture as necessary for the subject to become interpolated by the structure, which it would otherwise exist externally from. The art historian Kaja Silverman succinctly explains Miller’s theory as a concept that describes “the subject’s inauguration into language”.\(^ {87}\) Through the concept and practice of suture, of constructing a connection between the film and the viewer, using cuts and other forms of editing, the film maintains our attention, enabling the viewer to - viscerally and intellectually - engage with potentially disparate or divergent elements.

\(^{83}\) *Notes on Blue* (2015) is a 28-minute film essay by Moyra Davey commissioned by Walker Art Center as a response to the legacy of Derek Jarman and particularly his film *Blue* (1993).

\(^{84}\) A connection exists here to Caroline Herschel (mentioned in chapter 3) who went blind in her left eye following a childhood illness yet still became an astronomer.

\(^{85}\) From the Latin ‘suere’: to sew or join together.


\(^{87}\) Kaja Silverman, (1983) *suture; the cinematic model.* Originally in *The Subject of Semiotics* Oxford University Press. This version was published in *Identity: a reader* (2002) p.76
Although there is an element of ‘performance to camera’ evident in both the source materials and the artworks, my project is more attuned to the notion of the rehearsal and the aftermath. Extending out from the ‘moment’ of performance as event, the rehearsal and the aftermath are akin to the before and after of the photograph, the explosion, the action, etc. They are imminently becoming and continuously enduring. Collage is useful then in thinking and working with the idea of rehearsal and aftermath, as it intentionally displaces the object, and actively places it on a plane or field which emphasizes difference. For instance, between natural and manmade forms or between images produced with ‘new’ or ‘old’ technologies. This relies upon our ability to see strangeness, to think ‘otherly’, and to read speculatively. For instance, how might the logic of collage be employed to think about the infamous and well-worn photograph of the detonation of the ‘Baker’ device, that was exploded as part of ‘Operation Crossroads’ at Bikini Atoll? Although this photograph is intended to document and make visible the performance of the atomic test, the nuclear explosion that takes center stage against the horizon, foregrounded by beach huts and palm trees, appears as a ‘displaced

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88 I suggest that to perform is an action that connotes or is done explicitly for a particular type of looking, a conscious attention, whether by human or machine, for which the performance is enacted for.

89 ‘Baker’ was one half of a pair of nuclear tests that took place at Bikini Atoll in 1946 (the other was called ‘Able’). It was suspended halfway between the surface of the water and the bottom of the sea and so was detonated 90 feet underwater on the 25th of July 1946.
object’ (Brockelman) extracted from another time and place and ‘repositioned’ (Nochlin), in order to communicate a concept that is not otherwise already available.

Beginnings

In 1998 I was completing my undergraduate degree in photography. As one of only two ‘photography’ students who were using video, I was trying to make work and sense of it. One of the first moving-image works I made centred around footage that I had filmed of an open-heart surgery being performed at a local hospital. To ensure that I understood the procedure which I was going to witness and record, and also test whether I would be able to withstand being in proximity to the opening up of a living human body, the surgeons requested that I observe an operation without filming it. So without my camera, I watched an entire operation from the patient being wheeled into theatre to him being wheeled out again, from the iodine being swabbed across his chest to the first incision, the slow trail of blood, the whirring of the small circular saw used to cut his breastplate, the vice-like tool used to ‘open’ his chest cavity, the taking of an artery from his leg and the stitching of it to his heart (valve).

A few weeks later I filmed another open-heart operation and obtained hours’ worth of usable footage, but this first operation is the one I wished that I had filmed. Before the procedure, just before the swabbing of iodine one of the surgeons took a polaroid photograph of the patient’s chest. Located exactly where his body would be opened up the patient had a large tattoo and the surgeons (beyond saving the man’s life) wanted to ensure that when they sewed him back up this tattoo (which was about to be cut in half, from top to bottom) could be made whole again. The tattoo was of a circus strong-man fighting a lion. From the beginning then, my practice has been concerned with the intertwining of the still photograph and the moving image, of doing and un-doing, and of threads being pulled to bring things together and to take them apart.

To paraphrase Virilio the gaze of both the surgeon and the camera is a “penetrating gaze” it is intent on going below the surface to break up the wholeness of the object or scene, to focus attention on fragments and parts, and to change the way that they function, physically or perceptually. This is what my PhD has done with the objects and images that it has taken as its subjects.

Viewing artworks:

At this point I invite the reader to view the three main artworks submitted as practice-based research for this PhD.

**Mean Time (2020)** Please email me at: cunningham.karen@gmail.com for link to view the film.

**Looking and Being Overlooked (2021)**

Please note; *Looking and Being Overlooked*, the moving image component of *Parataxis*, has no audio. Also, as *Parataxis*, has been acquired by The Centre for Research collections the University of Edinburgh the actual printed textile piece, *Revolution is a living Language*, can also be viewed at the University. Please email me at: cunningham.karen@gmail.com for link to view the film.

**Apparent Time (2022)** Please email me at: cunningham.karen@gmail.com for link to view the film.
Chapter 1: Mean Time

1.1 Introduction

My film Mean Time invokes a consideration of photography as a product of a way of looking at and thinking about the world prefigured on separating or shuttering it and questions our apprehension and engagement with the world as something that is divisible. Mean Time contests that minor forms of photography, such as postcards, have the potential to access instances of undertheorized and overlooked connections, and that these are capable of expanding and questioning how we understand historic global events, as well as our everyday relationships to the world, and to time. I titled the film Mean Time in reference to horology, the science of studying and measuring time. ‘Mean’, as the middle or average, refers to noon, the point in the day when the sun is seen at its highest position in the sky. The title is also intended to suggest Mean Time in relation to an experience of, or feeling about, a certain period of time as difficult, troubled, or unjust.

The film was made during a Scottish Graduate School for Arts and Humanities artist research residency which I was selected for at the start of 2020. The residency was with Collective, a contemporary gallery and art organisation on Calton Hill, a historic site of observation and Enlightenment science in the center of Edinburgh, Scotland. My intention for the residency had been to gather research from official, institutional archives and to generate visual materials from specific places in Edinburgh, including The National Archives of Scotland, and the site of the former Craigleith quarry (now a supermarket) the source of the stone used to build the majority of the structures on Calton Hill. Due to the Covid-19 pandemic, however, the buildings and locations I had planned to research at were closed and travel was restricted. Although this sudden limitation was problematic, the inability to go to these places stimulated my thinking about the subjects of my research residency in relation to my interest in travel, which I had begun to explore in my PhD. The subsequent reconfiguration of my approach to the residency led me to look at objects and images from informal sources, rather than documents from official archives. At this point, the postcard, an object which had been a source material operating in the background of my research, became foregrounded as a subject in itself. I began to collect postcards, the majority of which were real photographic postcards.

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91 This thinking on divisions could be extended to academic disciplines, art forms, and social structures as well as epistemological positions, such as the distinction between belief and knowledge.
92 Whereas ‘meantime’ is the time or interval between two events or points in time.
93 From the Latin medius and the old English word median.
94 GMT is not adjusted in line with daylight savings.
or ‘RPPC’. Most real photographic postcards are made from duplicating a photograph and thus exist as commercially produced multiples. Some older postcards were singular and made as direct prints from glass plates, others were pre-existing photographs turned into postcards, cropped to the appropriate size, written on, and stamped.95

The postcard in general is useful to consider as a folk document, an unofficial archive of the sites depicted and the people who visited them in certain periods of time. The photographic postcard in particular is an overtly temporal object as in addition to the dates registered by its production and use when sent, dated, stamped etc., it also records the specific moment of the image being taken. The RPPC is both excessive; a mass-produced item, and an outcome of “the industrialization of photography in the 1880s”96, and it is restrained; constricted by its scale and its cultural significance to the status of a ‘minor’ form of photography.97

1.2 Looking for different images

When I consciously began to collect postcards, I looked for different images of the same sites and structures on Calton Hill. I believed that, if I gathered them together, I could perhaps connect the images together to form a comprehensive picture of the site, a panorama98 of sorts, providing a totalising view of Calton Hill. In addition to searching for postcards of Calton Hill, I also looked for images of the Parthenon in Athens, the building which the National Monument in Edinburgh was based upon. In my search for postcards of the Parthenon, I found a magic lantern slide featuring a model of the Parthenon exhibited at the British Museum in London, where half of the marble constituting the figures and friezes of the actual Parthenon are kept. These stone carvings had survived on the Acropolis until Lord Elgin’s infamous raiding of the Acropolis at the start of the 19th century.

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95 In 1903 Kodak launched a camera called the ‘No. 3A Folding Pocket Kodak’. The camera was designed for postcard-size film (approx. 3-1/2” x 5-1/2”) so that the general user could take photographs which were then printed directly onto the back of postcards.
97 The concept of the ‘minor’ is discussed in more depth in section 1.5
A magic lantern slide requires an apparatus and a light source to function in its intended manner, for the small image to be projected so that its subjects can be viewed at different scales. So, in addition to functioning as a comment on acts of imperial cultural looting, this particular magic lantern slide (fig. 22) and the objects depicted in it, fold together several technologies, and cultural practices into one single image. It speaks to the capacity of the photographic image to incorporate multiplicities of scales, technologies, and forms of representation which are both cultural and social. The theorist Bill Brown has said of technology that it “is and has been an objectification of divisions within society” and I suggest that photography is perhaps one of the most pertinent examples of this.

My search for postcards quickly moved from a physical pursuit, rummaging through dusty boxes of discarded and unwanted postcards in local second-hand and vintage shops, to a virtual and global search undertaken online. My search reference also changed from an image search to a word-based search, dependent on a computer algorithm to find in the sellers’ descriptions of the postcards the words, and terms relevant to my search. I began with names, of cities (Edinburgh and Athens), sites

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99 Approx. 4 x 3.25 inches
(Calton Hill, the Acropolis), and structures (the National Monument, the Parthenon). This produced a mass of picture postcards, but they were often irrelevant to my purpose. They included postcards depicting a full-scale replica of the Parthenon built in Nashville, Tennessee in 1897 and digitally printed copies of ‘old’ postcards reprinted on shiny new card stock. I then used words specific to the materiality and production date of the objects I was looking for, such as ‘real photographic postcard’ and ‘vintage’. This emphasised for me that I was looking for an object which I believed to exist, made from a photograph I believed to have been taken. My search was not for a revelation - a ‘new’ image - it was for an assurance that the photographs I imagined had already been taken.

In looking for distinct images of the National Monument and the Parthenon, I saw a pattern emerging of parallel compositions and dominant vistas, reproducing the same image over time, via the developing technologies of photography and print reproduction. I collected these postcards, with their typifying views of the iconic structures. These postcards did end up in the final film, they are the first image sides of postcards in the film, but despite the lengthy search for them, their images are denied; masked by the ostensibly blank side of an unused and unsent postcard.

1.3 The photograph in cinema

On one side, there is movement, the present, presence;
on the other, immobility, the past, a certain absence.

On one side, the consent of illusion;
on the other, a quest for hallucination.\textsuperscript{102}

Raymond Bellour

Here the theorist of cinema and the moving image, Raymond Bellour, elucidates the relationships and distinctions between photography and cinema. Bellour’s rumination could also be used to describe the recto/verso\textsuperscript{103} of a postcard, particularly a topographical real photographic postcard, such as


\textsuperscript{103} Recto and verso relate to the right-hand page of a book (recto) and the left-hand side (verso). In contemporary postcards this can be seen as the recto being the site of the address and the verso as the place where the message would be written – this came into effect around 1904. However, the first postcards did not permit messages to be written on them as the blank space on the reverse of the image was only to be used for the receiver’s address.

\textsuperscript{101} Another artist working with ‘found’ vintage RRPC is Zoe Leonard. See for instance her work \textit{You see I am here after all} (2008), an installation of almost 4,000 postcards of Niagara Falls dating from 1900 – 1950s.
those that I have used in Mean Time. These act to confirm and to repeat certain vantage points and forms of temporal and spatial distance.

For Gilles Deleuze, the prehistory of cinema is confounding because we do not know “how to define this lineage”\textsuperscript{104}, how to untangle the history of cinema from other forms of mechanical looking and image recording. For Deleuze, it is not the shadow theatre or controlled projected light of the magic lantern that can be claimed as the origins of cinema, but rather the photograph; specifically, ‘the snapshot’, a work of minor photography, the material outcome of the ‘privileged instant’ of brief exposure which he relates most closely to the moving image. As Deleuze says it was Thomas Edison or rather his assistant, William Kennedy Dickson, who developed a standardised perforation of celluloid film. This enabled a length of film to pass continuously, at a controllable rate, through the motion \textit{pictureanela}; the Lumière brothers designed a claw mechanism that matched these small holes. Together, all of this enabled a film to flow from innumerable privileged instants. In my artworks, the insertion of the photograph into the film (the multiplication of the singular still image) forms both a collusion and a collision between the two technologies and their mechanical and theoretical overlaps which has been explored through my use of methods of copying, un-doing, and collage.

The interdependence of holes and images - and their presence on the same surface - is reminiscent of the zoetrope, a 19\textsuperscript{th}-century cylindrical device, in which a sequence of images is separated by holes in the form of vertical slits. When the device is put into motion and spun, looking through the slits one perceives the illusion of a still image in movement. This particular way of seeing, of looking at a still image and seeing it as moving, is enabled by the unmaking of a surface, by the creation of a hole, a framed void.

1.4 Photography and the event

\textit{Mean Time} creates a dialogue with theorist Ariella Aïsha Azoulay’s proposal to re-think photography’s relationship with history and in particular its visual documents, documents which (especially when preserved in an archive) constitute the privilege of what she terms “imperial rights”\textsuperscript{105}, documents which make claims on the past, present and future.\textsuperscript{106} In her writing she seeks to analyse

\textsuperscript{106} In this regard Azoulay’s position is informed by existing critiques of photography around the 1980s by writers including Victor Burgin and Douglas Crimp who argue that rather than photography being emblematic of modernity, it is synonymous with postmodernism.
photography as “an apparatus of power that cannot be reduced to any of its components: a camera, a photographer, a photographed environment, object, person, or spectator”. Azoulay also addresses the photograph directly, through creative practice, by taking existing potent photographs related to acts of war and occupation, such as images of dead bodies and forced migration, then using tracing paper and pencil to transpose elements of these images into another medium. Azoulay claims the resulting new image, the drawing, a partial rendering of what can be seen in the photograph, enables access to unperceived information held in (or by) the photograph. Azoulay also asserts that this act, this copying through drawing, refuses both the photographer as the privileged taker of the image, and the instrumentalization of the image, enacted through its reproduction and dissemination; processes to which the photograph is inherently connected.

To me however, Azoulay’s methodology – of making what is already available on the surface of the image less visible, by translating or converting the photograph into a drawing - in fact renders less perceptible the very connections between photography and imperialism which she aims to reveal. Furthermore, this process disavows the responsibility of looking. Instead, what I find most valuable in Azoulay’s proposal is her demand to consider the “ontology of photography” as an event, separately from the “ontology of the photograph”.

The philosopher and cultural theorist Slavoj Žižek writes that an event “is not something that occurs within the world but is *a change of the very frame through which we perceive the world and engage in it*”. For Žižek, the event creates an ‘enframing’ by isolating the subject from its ‘natural’ context and (as photography does) representing it or using it in different and often unforeseen ways. The event can be recognised as being an “*effect that seems to exceed its causes*”; therefore, for him the event cannot be presupposed. This concept of the event suggests a disarticulation with time, or a rupture in the flow of projections, of what can be expected to happen over the course of a certain period.

The event is contingent on being witnessed, on its effects being observed (by people), or documented (by technologies), and on it being recognised as such. But this recognition does not have to be contemporaneous to the event. It may not be recognised as an event until much later when new

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110 Ibid.
information comes to light, or when changes in science enable new ways of understanding. Whatever causes this recognition, a document of the event, a photograph, a letter, a woven garment, or a fossil, a “material witness” \(^{111}\) must be called upon to confirm it.

1.5 Minor forms

Works of minor photography can be anonymous snapshots of ancient monuments copied innumerable times or singular photographs of unrecognisable places taken by formations of international power. Although, on one hand, works of minor photography are often only retrievable or viewable through non-human forms of searching and seeing, their value or relevance is not readable by any other agency than the human who can recognise in these photographs, of ‘nothing,’ the residue and imminence of worlds.

*Mean Time* uses postcards precisely because they are forms of minor photography; images made through the mechanics of a major, or dominant practice which then operate in a liminal capacity, outwith the canon of photography. The idea of ‘minor photography’ stems from Gilles Deleuze and Félix Guattari’s concept of ‘minor literature’.\(^{112}\) Deleuze and Guattari argue that minor literature is not formed by “a minor language; it is rather that which a minority constructs within a major language”\(^{113}\). They claim this can make a relationship between power and language apparent, as minor literature reveals the capacity of text to operate in ways that the major form shuns or disavows. For Deleuze and Guattari, “‘Major’ and ‘Minor’ do not qualify two different languages, but rather “two different usages or function of Language”\(^{114}\). The distinction then is connected to how these differences are deployed. My research contends, that photographic postcards are capable of, in

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\(^{111}\) Artist and researcher Susan Schuppli conceptualises a material witness as a non-human ‘entity’ capable of “harbouring direct evidence of events as well as providing circumstantial evidence of the interlocutory methods and epistemic frameworks whereby such matter comes to be consequential” Susan Schuppli (2020) *Material Witness: Media, Forensics, Evidence*, MIT Press p.3

\(^{112}\) A term which they coined in relation to their analysis of Franz Kafka’s writing, particularly his use of the term ‘minor’ in his diary entry of 25th December 1911. In their essay, *Kafka: Toward a Minor Literature: The Components of Expression*, Deleuze and Guattari write that “Major or established literature follows a vector which goes from content to expression: a content once given, in a given form, one must find, discover, or see the form of expression suitable to it. What is clear in the mind is then spoken … But a minor or revolutionary literature begins by speaking and only sees and conceives afterward” … “The expression must shatter the forms, marking the breaking points and the new tributaries”. Deleuze and Guattari (1985) *Kafka: Toward a Minor Literature: The Components of Expression in New Literary History*, Spring, Vol. 16, No. 3, *On Writing Histories of Literature* (Spring, 1985), pp. 591-608. Johns Hopkins University Press. p. 591.

\(^{113}\) Gilles Deleuze and Guattari, Félix (1986) pp.16-17

Deleuze and Guattari’s terms, deterritorializing ‘major’ codes of representation “by operating directly in society, instead of merely representing it”\(^{115}\), by being motile and accessible.

I argue that thinking through, or with, the ‘minor’ in artistic practice and research enables overlooked connections to be rendered perceptible, by taking what is marginal or innocuous and centralising it. Several writers and theorists have applied Deleuze and Guattari’s notion of the minor to photography. For instance, the theorist and artist Simon O’Sullivan offers “stuttering and stammering” - which we might think of as constrained utterances, repetition, and over-articulation - as expressing “the mode in which literature becomes minor”\(^{116}\). He asks, “what might be the character-or components-of a specifically minor photography?”; how can it be defined? O’Sullivan does not provide an answer but rather suggests that through the process of attempting to describe what we might understand as minor photography, “the very definition of the minor (and possibly of photography also) will necessarily change”\(^{117}\).

### 1.6 Mean Time

In *Mean Time* I use the following quote by Azoulay which I draw-out to occupy almost the entire second half of the film:

> Imagine that the origins of photography are not to be found somewhere around the beginning of the 19\(^{th}\) century – when European white males enjoyed a certain cultural, political, and technological wealth and could dream of recognition as glamorous inventors if and when they succeeded in developing further ways to fragment, dissect, and exploit others’ worlds to enrich their own culture.\(^{118}\)

I use Azoulay’s quote to provoke the viewer to consider photography as more than the convergence of developing technologies, scientific innovation, lenses, chemicals, optical theory, sunlight, and celluloid but also as a conceptual and technological consequence of imperialism and forms of looking, and capturing, which pre-date the camera. Azoulay’s text is prominent in the film, but rather than being incorporated as a single entity I re-articulate it in the film. I cut up, space out, and re-present

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\(^{117}\) Ibid.

words and fix them to the image behind, giving each word or phrase a sense of weight and forcing a new reading of both. This method slows down the act of reading: an interference with the individual's experience of time made possible through the moving image work.

Fig. 22 Still from Mean Time (2020)

I suggest that the proposal Azoulay puts forward can be read as an expansion on anthropologist Michael Taussig’s observation of the ways in which “photography seems to be emblematic, to verify the existence of the scientific attitude as much as the existence of that which was photographed”.  

Therefore, it is not just that the thing, person, event or place is shown to have existed – as confirmed and made evident by its photographic record – but that the observer had the power, capacity, and ability to ‘capture’ this subject and to render it as a reproducible image. In considering the new objects and events which the advent of photography produced, the media theorist Scott McQuire writes “One of the most significant of these new objects was the postcard: a cheap, disposable, collective sign of the global horizons of modernity”.  

The postcard enabled an engagement with the world without needing to travel. It also facilitated a form of mass participation with photography without engaging with the camera.

Mean Time starts and ends with the sound of the sea. Visually it begins with a subsuming image: the waves reaching for, and then retracting from the shoreline, and it concludes with my hand slowly covering the lens: the eye. In this way, the aerial bodiless view from the drone, in the initial sequence, 

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finds its counterpart in the close-up of the body at the end of the film, as light seeps through the spaces between the fingers (and through the skin itself). The out-of-body experience, the omnipresent bird’s eye view of the sea is counterpointed by the blurred detail of the body, as the hand makes contact with the lens. The inner body closes itself, and the camera, off from the world. These movements - the back and forth of the sea and the scanner line, the inexact repetitions of sounds, the magnification of images, the shifts in scale and forms of obfuscation - traverse the film and indicate the modes of address used both in this artwork and the PhD as a whole. These are strategies intended to encourage new ways of looking at the images presented and at the mechanisms which present them, provoking connections between visual and embodied readings.

As the footage of the sea fades, all that remains on screen is the ostensibly ‘blank’ postcard set against blank space. It exists without a receiver and is lacking a message. It’s margins have been defined, but it has no author. I present it as a site for projection, for words, dates, places, and names: “...the postcard epitomized the West’s desire to render the colonies totally visible and completely legible”. My film argues that postcards, particularly real photographic postcards, have been instrumental tools of world-making. The monologue begins at this point of apparent visual blankness,

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and with it, what the film theorist Nora Alter describes as the “expectation of seeing”\(^\text{122}\) to which the viewer of the moving image is habitually subjected to. This expectation is predicated on the understanding, and the anticipation, that an image correlate with the idea communicated through the work must exist and will be presented. But, as the monologue continues for a number of minutes, the image remains ostensibly blank. Protracting the viewers ‘expectation of seeing’ functions to draw attention to sensorial aspects, such as the film’s audio, and its intentional disconnect, or diegetic dissimilarity, from the film’s visuals. In this way, Mean Time advocates for a differentiation between what is visible and what is perceptible in the work. This is enforced through the first words spoken in the film, “Everything is blank”, a phrase intended to induce a consideration of the void, of empty or unoccupied space, as a subject in the work.

Once the image and sound of the waves fade, the viewer of Mean Time is returned from an aerial vision of the world to a desktop view of it, and a reduction of scale, from that which exceeds the body (the ocean), to an object (the postcard), whose hand-held dimensions relate explicitly to the body. The monologue in Mean Time goes on to assert that “As image, and word the World is itself a form of mastery”, reflecting on how the idea of the ‘world’ has been, and still is, used as a totalising concept. According to the cultural historian Ayesha Ramachandran, in early modern Europe the concept of the world was proliferated through “verbal omnipresence”, and in this period “the world became a contested category”.\(^\text{123}\) During this time, without an objectively machine-made image of the world - such as would be enabled over 300 years later by photographs of the Earth taken from space - definitions of the word ‘world’, as singular, plural, known or unknown, were constantly reclassified and re-made.

1.7 The postcard

The postcard is everywhere, covering all colonial space, immediately available to the tourist, the soldier, the colonist. It is at once their poetry and their glory captured for the ages; it is also their pseudo-knowledge of the colony.\(^\text{124}\)

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\(^{124}\) Malek Alloula (1986) *The Colonial Harem* University of Minnesota Press. p.4
This is how the Algerian writer Malek Alloula describes the reach and function of the postcard in his book *The Colonial Harem*. His book reproduces photographic postcards that were made in Algeria and sent back to France by the occupying troops between 1900 and 1930. The postcards are staged portraits of sorts and predominately feature Algerian women. Through the collecting and re-presenting of these postcards, Alloula says he seeks to “return this immense postcard to its sender”. He identifies the sender not as the individual soldiers who posted these cards, but as Europe and the colonial regime which sent these men there; a regime that used photography to undertake acts of capture. I see Alloula’s project as articulating an idea that, more than a mere innocuous souvenir, the photographic postcard has the capacity to participate in acts of violence by extending and exporting its forms. I suggest that Alloula’s project could be read as a preface to Ariella Aisha Azoulay’s concept of ‘The Civil Contract of Photography’, which stresses both the accountability of the photographer and the ways in which the viewer, “The citizen of photography enjoys the right to see”. Photography, in both of these examples, is used to constitute who has the rights of a citizen (to occupy and to claim space and images) and who does not. Although analytical in his intentions, Alloula’s project could be criticised for reproducing the imagery which he denounces, and by fixating on a binary representation of Algerian women as, either pious and thus veiled, or unveiled, pictured as bare-breasted ‘natives’. Yet Alloula’s book is a significant contribution to the study of photographic postcards as cultural objects. In relation to my project, Alloula’s example informed my thinking in regard to my use of existing postcards as source materials. It emphasised for me how transposing postcards as ephemeral objects into another medium (for Alloula the book and in my research the film) fixes them and can potentially amplify (and problematize) the very aspects which are in question.

When I began my residency with Collective, I was analysing photographic postcards as devices potentially used in the service of ‘militourism’, a term - developed by the I-Kiribati and African American scholar Teresia Teaiwa with the writer Louis Owens - which describes the entanglement of militarism and tourism as “cultural forces or presences that work quote loosely – sometimes so loosely that they become lost in or absorbed into other cultural forms”. I was interested in the confluence between tourism and militarism on Calton Hill, as a site of cultural heritage, and how, as the military feminist theorist Cynthia Enloe observes, tourism’s own history is acutely political, as “it

125 Ibid. p.5
overlaps with other forms of travel that appear to be less dedicated to pleasure”. This is particularly evident in regard to the National Monument on Calton Hill, a war memorial to the soldiers and sailors who died during the Napoleonic Wars, and one of the most photographed structures on the site. Its architect, William Henry Playfair, based his design for the Monument on the Parthenon in Athens, Greece, itself another iconic tourist site, which at one time was used as a temple to the Greek goddess of war and knowledge, Athena.

1.8 The replica and the reproduction

Acts of creation and recreation, that overlap in time, have informed both Mean Time and Another Just Past. For instance, the construction of the National Monument began on Calton Hill in 1826 and the same year, the French inventor Joseph Nicephore Niepce famously used the lens of a camera obscura to create View from a window at Le Gras, the oldest extant photograph. Synchronous to these events, the country that we now call Greece was under the dominion of the Ottoman Empire and existed as “a liminal territory between East and West”. Following its independence in 1832, Greece became a popular destination for travellers, “as tourism replaced the Grand Tour and photography ventured out of the studio to explore the world”. In 1839 the first photograph of the Parthenon was taken, and the very next year the first postcard was sent.

I had initially conceived of engaging with the National Monument - a partial replica, a copy, a folly - via its particular material formation as an edifice made from stone so durable that it was sent all over the world and used to build immense pillars and statues, from Buckingham Palace to the East coast of the United States. This notion of the copy (the National Monument) made to potentially outlast the original (the Parthenon) invokes other forms of reproduction, in relation to entropy, such as the

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129 The Napoleonic Wars occurred between 18th May 1803 - 20th November 1815.
131 Ibid.
132 In 1839 the French photographer Pierre-Gustave Joly de Lotbinière created a daguerreotype of the Acropolis which was published in Noël-Marie-Paymal Lerebours, Excursions Daguerriennes; Vues et Monuments les plus remarquables du globe (1842). Paris.
133 The first postcard, a piece of card with a hand-painted caricature of postal workers on one side and a Penny Black stamp on the other, was sent in England by Theodore Hook, who sent it to himself, on the 14th July 1840, the same year that the Penny Black stamp came into use. See; Michael Turner (2013) “A Postcard from Victoria in The Capilano Review 3.21. pp.49-51
status of photography as a medium of preservation; images made to outlast the people and objects which they record.

Postcards are not the only visual source used in Mean Time, but they are dominant. They exist therein both as objects - where we see their materiality evidenced through creases and frayed edges - and also as images, cropped and presented as stills. Mediating between times, places, people, words, pictures, mass-produced imagery, and unique individual messages, postcards constitute a discursive space and operate across social and economic groups. During picture postcards’ ‘golden age’ at the turn of the century (dubbed as “the photographic ‘Grand Tour’”) a huge amount was both sent and also collected; kept unsent as the proliferation of the ‘real photographic post card’ facilitated a form of vicarious armchair travel for working-class people who not only did not own a camera but could not afford to visit the places depicted.

1.9 Travelling in images

Another way for the working classes and the poor to travel, to ‘see the world’, has for a long time involved enlisting in military service. Jean-Luc Godard’s Les Carabineers (1963) a film which is equally farcical and political, centres around a fictional war, and two poor men, ‘Ulysse’ and ‘Michel Ange’, summoned by the King to become soldiers (carabineers). They are shown a photograph of a young women in a bikini, implying that their service may lead to both military and sexual conquest, and promised that, when fighting in faraway lands, they can loot and plunder as they please. The men leave their wives and the shack they live in and go off to war, sending back postcards detailing their escapades, an action which suggests parallels between going to war and going on holiday.

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135 Scott McQuire writes that, “the circulation of postcards rose exponentially at the end of the nineteenth century: by the First World War over one billion postcards were delivered annually in England and Wales alone”. Scott McQuire (1998) Visions of Modernity Sage. p.196
"We captured Santa Cruz and I saw my first movie."
(monologue from Les Carabineers)

When they return home from their bloody conquest, they do not have any loot or treasure. Instead, they bring a chest of real photographic picture postcards which they present to their wives as spoils of war. In an extended scene near the end of the film, Godard shows individual postcards in close-up, and the men list these photographic referents as actual treasures which they now possess. Susan Sontag writes of this scene, that it enforces the idea that “to collect photographs is to collect the world”\(^\text{136}\). As the film theorist Volker Pantenburg observed Les Carabineers “places a special form of commodified photography—the postcard—in the context of colonialist warfare and appropriation.”\(^\text{137}\)

It is vital then that the photographs in Les Carabineers are manifest as real photographic picture postcards because, in their specific form, the “idea of ownership of the respective object collapses ironically in the face of the fact that thousands of other viewers ‘possess’ it in exactly the same way.”\(^\text{138}\), thus undoing the notion that the photograph can capture anything other than light.

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\(^{137}\) Volker Pantenburg (2015) *Farocki/Godard: Film as Theory*. Amsterdam University Press. p.180

\(^{138}\) Ibid. p.192
Les Carabineers is an abstraction of a ‘war film’, both through the story it presents, and its rendering in comedic terms. These qualities, which complicate the possibility of realism in the film, also reflect the structural chaos and visceral mess of warfare. The photographic images in the film are offered as ontologically constituting both the start and the end point of war. In this way, Godard’s explicit and conscious use of photographic images as referents for reality in a ‘war film’ articulate the horror that there is “no utopian sphere behind the images”.

1.10 Another Just Past

In parallel to making Mean Time, I created a series of four digitally collaged postcards titled Another Just Past, using existing postcards featuring Calton Hill in Edinburgh or the Parthenon in Athens, as source images. These postcards included a short text written by me, presented as a message, and printed where text would customarily be written on a regular postcard. This imposition of text, and the collaging of existing photographic images, acts to obscure or complicate the notion of a typifying view, which photographic picture postcards characteristically confirm.

139 Volker Pantenburg (2015) Farocki/Godard: Film as Theory. Amsterdam University Press. p.189
Fig. 26a and 26b Another Just Past (2020) front and backs of postcards
Fig. 26c and 26d Another Just Past (2020) front and backs of postcards
As discrete objects of material culture in transit, picture postcards are ‘moving’ images committed to, yet separated from, the text that they carry. Having had its ‘golden age’ in the late 19th and early 20th centuries, the (real) photographic picture postcard embodies concepts and technologies of communication, photography, mass production, and travel. As a ‘just past’ (passed) technology the postcard is not yet obsolete but is increasingly superseded by faster, cheaper, and more user-friendly means of sending images and text.

Another Just Past uses the seemingly innocuous format of the postcard, to consider how forms of expansion, colonialism, and technological progress relate to the sites which they depict. The work can then be used as a series of invitations to consider or to invite another to cogitate, how pasts, which may or may not be just, or fair, or true, are embodied in the present.

1.11 Copy scanner

In addition to the postcard, Mean Time also uses other ‘just past’ technologies, such as the copy scanner, and addresses the ‘line’ as a technology in itself, which, like photography, is put into service to create and recreate versions of the world by dividing or duplicating it. The copy scanner is present in Mean Time both as a means of the film’s production - the scanning of the postcards undertaken in order to create image files that were used in the film - and presented as a technology in and of itself. In the copy scanner, a light attached to an optical sensor moves along a line on one axis, whilst this line moves along another axis. The reflected light from the original object is then collected by the optical sensor and translated into a digital form. Like the line, the copy scanner is a technology that is engaged in a form of liminality; of a change in state. The ability of the line to both dissect and connect reveals it as a tool that elucidates the slippages inherent between world-making and un-doing.

140 In this regard the copy scanner is superseded by the ‘smartphone’ capable of producing high-resolution image files of the same or comparable quality definition. I have used the term ‘just past’ in previous artworks.
Historically it is actually the scanner, rather than the camera, which produced the first digital image. In 1957, the surface of a photographic print - a portrait of the son of the computer scientist\textsuperscript{141} who undertook the task\textsuperscript{142} - was scanned.\textsuperscript{143} The world, as image, was then rendered and remade digitally at the same time as its physical material composition was radically un-made through global nuclear events.\textsuperscript{144} A perceptible link between these processes of making and un-doing is the excess of photographic images produced by both of these advanced technologies.

As the postcards which I use are bought from numerous sellers across the globe they arrive intermittently, somewhat anachronistically, through the post, in some instances returning to where they had come from. When I receive the postcards, I consider each one closely and with intensity, feeling the slight but discernible difference in the weight and finish of the card, indicative of the time and technology which was used to produce them. Despite not being a deltiologist (someone who collects and studies postcards) I spend time studying their surfaces with a magnifying glass. This process is tied both to a desire for proximity with them and a need to confirm their authenticity. As the art historian Julia Bryan-Wilson has said, we all develop a form of “lay expertise, personal proficiency, and tacit intelligence”\textsuperscript{145} in relation to the objects and materials that we come into

\textsuperscript{141} American engineer Russell Kirsch.

\textsuperscript{142} The photograph in that case serving as both the original and the copy. The original document which is scanned and translated in order to produce a digital copy and the child as a version, a copy of the parent.

\textsuperscript{143} This translation of an analogue image into digital code is now commonly known as digitisation.

\textsuperscript{144} According to the Department of Energy report \textit{United States Nuclear Tests: July 1945 through September 1992} DOE/NV-209 (rev.14), in 1957 alone 55 nuclear weapons were detonated, or ‘tested’ around the globe by the 7 by the UK, 16 by Russia and 32 by America.

regular contact with. Therefore, in trying to date and discern the vintage of the postcards (half of which are without a stamp which could be referred to for this purpose) I refer to my aptitude as an artist, as someone who recognises the different surface finish, texture and ages of card and can identify various types of printing.

Initially, I make a scan of the postcards in order to keep them safe, to preserve or more appropriately to suspend them, to defy the entropy of their materiality, and to stop them from being lost, from being moved somewhere else. Rather than fixing the image, scanning the image makes it more easily movable, while the original will, however slowly, continue to deteriorate. The scanning process, however, does enable me to look at the photograph (which constitutes the postcard) differently, now that it has migrated from a physical form to a digital state. The difference between looking closely at a photograph with the aid of a physical device is profoundly different, from viewing the same image with digital assistance. This difference is not just visual; it is not only a distinction between an image made of pixels and light compared to the granularity of the film rendered perceptible on the surface of paper, or the halftone dots made by printing ink; it is an embodied experiential difference.

The act of looking closely at an image on the computer screen does not require the body or the eye of the viewer to move closer to see in detail, but looking at the image using a loupe or a magnifying glass “physically draws the viewer into the core materiality of the object”. These different ways of viewing also register different limitations in the viewing experience, making me more aware of the physical threshold of the papers’ surface or of the virtual magnification restrictions set by the computer software program being used. Scanning the postcards and looking at them as images through the lens-less lens of digital magnification also affords the opportunity to then scan the images myself – not as the flatbed scanner does, patiently covering the whole surface of the image, bit by bit, line by line, taking in as much visual information as possible, but - by using hand and eye coordination (the mouse and the screen as extension or prosthetics of my body) to move and look in whichever direction and at whatever level of detail that I can. My own embodied act of scanning147 is not methodical like the mechanical action of the copy scanner, rather it is exploratory and sometimes frenetic. Looking at the photographs on the computer screen and enlarging them to the greatest degree of magnification quickly renders the image, which had been recognisable as a vista, a site, or a

147 Oxford English Dictionary states that to scan is “To cause (an area, object, or image) to be systematically traversed by a beam or detector; to convert (an image) into a linear sequence of signals in this way for purposes of transmission or processing”. Predating the digital scanner, the term ‘scan’ dates back to the Latin scandère, meaning to move across the surface of a rock, and later, of a written verse.
physical structure, into an abstract visual plane. Zooming (virtually) in and out of the photograph and across its axis I search for something, for what Bathes terms a ‘punctum’, something that pricks my field of vision, that holds my attention, and that makes me return to it again and again. Sometimes this is an object, the clock,

Fig. 28 Still from Mean Time (2020)

but for the most part it is a figure.

Fig. 29 Still from Mean Time (2020)

I isolate and visually extract this detail from the postcard image – pulling a new subject out of the innocuous photograph, and in doing so, I interpolate it.

### 1.12 Lines

Although many lines preceded it, and many lines followed, there is a single vertical line that can be said to have created the New World.

A work of aerial mark making, planetary in its scope, imposing a conceptual inscription.

**Monologue from Mean Time (2020)**

In his book *Lines: A Brief History*, the Anthropologist Tim Ingold undertakes an in-depth discussion of lines and linearity in relation to both Indigenous and Western forms of engagement with the world. Yet despite describing colonialism as “the imposition of one kind of line on another”, Ingold does not mention the lines which institute occidental treaties and time zones that *Mean Time* puts into question. I would argue that these lines constitute and enforce the world, and thus one of the ideas expressed in *Mean Time* is that the line, as technology, and its world-making capacity warrant further thought and exploration. The action of the lines and light depicted in *Mean Time* also draws attention to the interface between the world of the film and the world of the viewer (and that this work is invariably being watched on a small screen) itself another form of shutter or divide.

The white crest line of the ocean waves created by the shifting limit of the water’s movement at the start of *Mean Time* is echoed later in the film by the line of light of the copy scanner. These oscillations across the screen can be described as a ‘wipe’, a transition applied in post-production to reveal or replace one image with another. Thinking about the imposition of a line and its movement as a transition or wipe stresses the ways in which the act of copying is also an act of erasure as the making of the replica potentially undoes the uniqueness and the authorship of the original.

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Although ultimately a procedure used to build the film, the editing process also enables another unique way of looking. When I am editing, I am able to determine and easily adjust the amount of time that I (and therefore the viewer) spend with each image. This is where and how the photographic image enters the ontology of film, not by virtue of it becoming a \textit{moving} image but by it becoming time-based, as the length of the viewing experience is determined by the work itself (by the artist) rather than the viewer.

\section*{1.13 Tourism and its monuments}

As items produced in order to be sent from one person to another, to be circulated, the ‘real photographic postcard’ is both a transient object, which mediates relations between people and, as a form of photography, a reflection of the concurrent industrialisation and domestication of the medium at the turn of the 19\textsuperscript{th} century. Photographic postcards are also sites in which the shifting status of the photograph can be observed. However innocuous or vernacular it appears the real photographic postcard is important because it constitutes the creation of “a space capable of registering the infinite variety of photographic possibility; even when commercialized in the popular form of travel or tourist cards”; the postcard has the capacity “to multiply heterogeneity and to resist classification”.\textsuperscript{150}

The mass-produced real photographic postcard is the photograph as ephemera, intended to exist, or to be experienced, for a short time. There is then something particularly paradoxical or enigmatic about photographic postcards of monuments. As Barthes wrote, in accepting the photograph as the “witness of ‘what has been’, modern society has renounced the Monument”.\textsuperscript{151} Of course, all monuments can be said to engage with the passing of time, with death, in that they are intended to operate across generations and eras and therefore to outlive their makers.

Stoking our desire for the faraway place, by making it appear within our reach, devices for seeing were perhaps always entangled with travel, or at least the idea of there being a ‘somewhere else’. According to Paul Virilio, Galileo pointed his telescope toward the ocean’s horizon before turning it towards the sky.\textsuperscript{152} The horizon is a natural (though virtual) line or division, not just between the Earth

\begin{footnotesize}
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\item[\textsuperscript{150}] Todd Alden (2005) \textit{And We Lived Where Dusk Had Meaning: Remembering Real Photo Postcards} in the book \textit{Real Photo Postcards: Unbelievable Images from the Collection of Harvey Tulcensky}. Princeton Architectural Press.
\item[\textsuperscript{151}] Roland Barthes (1981) \textit{Camera Lucida} Hill and Wang p.93
\item[\textsuperscript{152}] Paul Virilio (1994) \textit{The Vision Machine} Indiana University Press.
\end{itemize}
\end{footnotesize}
(or ocean) and the sky, but between what is knowable and that which is unknown, the imagined space or place beyond our vision. When photography emerged as a tool for recording and representing difference it performed (like the horizon) a structural divide between what, and who was in front of the camera and who, and what was being viewed through it.

As Susan Sontag observed, “photography developed in tandem with one of the most characteristic of modern activities: tourism”. Enabled by colonialism, the Grand Tour put the privileged observer into transit; to survey and sample as the wandering aristocrats of the 17th and 18th centuries gave way to middle-class travellers who were then supplanted by the tourist. When the camera was mobilised in the 19th century, these routes were traced and recast as enlightenment-inspired expeditions. The photographs produced were used to institute ways of looking, assisting in establishing mastery over liminal territories and others’ culture by instrumentalising their past and stating, visually, “here is their history, we found it in ruins”. These movements, travels and journeys were determined not only by wealth but by militarism as the coveted destination became a contested site of conflict, then a holiday resort then back to a war zone again (and again).

Writing messages on the reverse of early ‘picture’ postcards was not permitted; thus, the image was the message. Some of the most popular postcards sent during the golden age of the real photographic postcard (the 1880s to WW1) were topographic in nature, often featuring recently constructed works of large-scale engineering or newly ‘discovered’ ancient structures. By iterating borders and emphasizing sites and architecture through the medium of photography, and then distributing them globally, these postcards disseminated a version of modernity. Their images often presented places and structures from afar and as subjects, either without people or from such a distance that figures were rendered imperceptible. This served a practical purpose as, unlike the people who made, used, and tended to them, these assemblages of stone and steel did not move during the long exposure time of early photography, and thus they were ideal subjects. In this way, these types of photographic images also reiterated a key aspect of colonial thinking: the fantasy that, in some way, physically, conceptually, or culturally, the rest of the world was empty.

155 Ibid.
For the cultural critic Boris Buden, historical time, delineated by a supposed chain of social, political, and scientific events which fostered a “sense of continuity and permanence”\(^\text{156}\) replaced the “empty and abstract time flow”\(^\text{157}\) of pre-modernity. Modern technologies of recording and measuring meant that time could be accounted for whilst technologies of reproduction enabled the documentation of time and space to be disseminated, thus creating a common, collective, national, or global consensus on events that could be said to constitute history. Photography’s particular relationship to history is often considered in regard to its evidentiary capacity as proof maker but, as potential historical documents themselves, photographs also partake in the creation of fictions. They enable an illusion of having access to times long gone and to faraway places, because, as Sontag observes, “photographs give people an imaginary possession of a past”\(^\text{158}\). Buden suggests that there has been an increased emphasis on the cultural importance of memory and memorialization from the 20\(^{th}\) century onwards, to the extent that we are now experiencing historical time differently. He says that an outcome of this is that “We don’t know what has to be saved from the past and preserved”,\(^\text{159}\) because we don’t know what will prove to be meaningful in the future or what will enable us, as individuals or societies, to look critically at the past. This issue is, it seems, further complicated by the various photographic technologies of memorialization and memory aid which, by making it possible to create multiple versions, result in what Buden, citing the historian Pierre Nora, terms as the “obligation to stockpile”.\(^\text{160}\) This is the compulsion to accumulate, and even to hoard “in an indiscriminate fashion, everything we believe might eventually testify to what we are or what we will have become”.\(^\text{161}\)

If we determine cultural heritage to be that which reflects the characteristics of a society or group through ideas, sites, or artefacts inherited from previous generations which are then, officially or informally, held in stasis, conserved in the present, how might photographic postcards relate to this concept? As mentioned above, early real photographic postcards are transient objects whose significance comes in part from the fact that they have not been thrown away. Although they are not treasure, they have been treasured. They have been kept even when their utility has been exhausted, and “To see them today is to recall the dawn of vernacular photography and the luminous, fugitive wonder of its early registrations”.\(^\text{162}\)

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\(^{157}\) Ibid. p.9


1.14 Observing Technologies

The British artist Simon Starling’s film *Black Drop*[^163], made in 2012, begins with an empty black screen accompanied by the mechanical sounds of an analogue film reel. The first image in the film is the view of an empty film editing suite.

![Fig. 30 Still from Simon Starling’s *Black Drop* (2012)](image)

*Black Drop* (re)constructs a story, or rather a meta-narrative, around interlinked quests – starting with the story of the French astronomer Jules Janssen (1824-1907), who devised a ‘photorevolver’[^164] that could take 48 photographs in just 72 seconds. In 1874, Janssen set out to use his photorevolver to record the transit of Venus across the Sun. This event occurs in pairs eight years apart, separated by periods of 105 or 121 years. Until 1874, the Venus transit had only been visually recorded in drawings (fig.31). These earlier accounts indicated that the transit contained an optical effect, the ‘black drop’[^165], which made it look as though Venus was stretching and morphing the closer it moved to the

[^163]: *Black Drop* (2012) 35 mm black and white film (transferred to HD) with sound. Duration 27min 42 sec.
[^164]: A device that creates a sequence of images in order to capture an object or a person’s movement.
[^165]: “The suggestion by Edmond Halley (1716) that transits of Venus can be used to determine the distance to Venus from its parallax led to dozens of international expeditions for the 1761 transit. Halley’s method required accurate measurement of the duration of the transit from a given location in order to determine the length of the chord. He thought that such determination could be made to approximately one second of time. But Bergman (1761), in observing the transit, reported that a ligature joined the silhouette of Venus to the dark background exterior to the sun. This dark “black drop” meant that observers were unable to determine the time of contact to better than 30 s or even 1 min. The black-drop effect thus led to uncertainty in Venus’s parallax, and thus the sun’s parallax, and thus the Astronomical Unit.” *The black-drop effect explained* (2004) Jay M.
visible edge of the Sun. This phenomenon made exact calculations of the transit’s duration impossible. In 1874, the hope was that photography could be used to produce objective recordings of the transit, precise enough to accurately measure the Venus transit.

Fig. 31
Captain James Cook and Charles Green’s drawings of the transit of Venus across the Sun as seen from ‘Point Venus’, Tahiti in 1769.\(^{166}\)

Starling’s film focuses the viewers’ attention on both the individuals credited with undertaking these observations and developments, particularly Janssen, and on the techniques and mechanisms which they created and employed. The voice-over, narrated by the Scottish actor Peter Capaldi, tells us that one of the many scientific pursuits of the West during this era was to determine, as precisely as possible, the ‘mean’ distance between the Earth and the Sun: a measurement now known as the

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\(^{166}\) Image of drawing from the *Philosophical Transactions* of the Royal Society, (1771) Vol. 61, p.410
astronomical unit. In the 19th century, the only way to calculate this was to use the phenomenon of the Venus transit as a reference by taking two simultaneous calculations from two different observation points: one in Hawai’i and another in Tahiti.

The voiceover in Black Drop is presented as an authoritative reliable narrator who tells us how the development of moving image practice aligns with scientific technologies in the 19th century, stating, for instance that “Janssen’s innovative approach to chronophotography had a considerable impact on the future of cinema.” 167 According to the artists’ text accompanying the work, “The film tells the story of the relationship between astronomy, photography, and the beginnings of moving image technology. Predicated on the idea that the 2012 event may be the last transit of Venus to be recorded on celluloid (the next transit will occur in 2117), Black Drop tracks the development of the French astronomer Jules Janssen’s innovative photographic revolver – a device designed to counter human error in timing the crucial moments of Venus’ contact with the edge of the sun, and was influential in the development of Etienne Jules Marey’s photographic rifle and the Lumiére Brother’s cinematograph.” 168

Although aesthetically stunning and technically deft, I find Starling’s film somewhat problematic. It seems to confirm and enforce the position of the European male as the protagonist of history, photography, and science, a position which, as articulated by the quote I use in Mean Time, Ariella Azoulay calls into question. 169 The artist’s text accompanying the work says that Black Drop includes footage filmed “on location in Hawaii and Tahiti on the occasion of the June 2012 transit of Venus”. 170 As the anthropologist Debbora Battaglia writes regarding the production of Starling’s film, “Being there as part of a technoscientific media event implicates the artist in a cosmo-political distortion of Aboriginal ‘worlds of vision’ ”. 171, whereby the insistence on traveling to an ‘other’ place to create an authored record of a world event emphasises a form of Western mastery and the reduction of a multiplicity of world views to a singular vision.

167 Black Drop (2 min 17 sec – 2 min 25 sec)
168 Description of the work on the artists/Black Drop page of the Modern Institutes website; https://www.themoderninstitute.com/viewing-room/film-screening
169 The quote from Azoulay presented in my film Mean Time is, “Imagine that the origins of photography are not to be found somewhere around the beginning of the nineteenth century – when European white males enjoyed a certain cultural, political, and technological wealth and could dream of recognition as glamorous inventors if and when they succeeded in developing further ways to fragment, dissect and exploit others’ worlds to enrich their own culture.” Ariella Azoulay Potential History - Unlearning Imperialism. (2019) Verso p.3
170 https://www.themoderninstitute.com/artists/simon-starling/works/black-drop-2012/85/
Starling elected not to use contemporaneous video technology (such as digital 4K) and instead shot on 35mm black and white film stock (a decision which contrasts with Janssen’s employment of technologies of the time). For Starling, *Black Drop* is centred on the notion that “With the next transit not due until 2117 and with film fast disappearing, it is likely that the 2012 transit will have been the last to be recorded using this fast disappearing technology.” As potentially the ‘last’ of this type of recording the film’s production then is entangled with ideas of ‘first contact’ and extinction: discovery and disappearance.

![Still from Simon Starling’s *Black Drop* (2012)](image)

What I find problematic in *Black Drop* is that the travels of the European males in the film present journeys to distant and distinct places as quests, made worthy, not by the results achieved, but by the tenacity of these individuals. Janssen and Starling’s authoritative position is emphasised by the technologies, they employ, and by the fact that they can move, that they are mobile, and that they have the agency to choose to transit across the globe.

172 Simon Starling, artists text: https://www.themoderninstitute.com/artists/simon-starling/works/black-drop-2012/85/
As the monologue in *Black Drop* tells us, the photographic images produced by the 1874 expeditions were ultimately insufficient to determine the accurate length of the astronomical unit and thus to obtain a new ‘mean’ measurement. After the expeditions, the observations that had been made at the same time and place by the human eye were then deferred as they were deemed more reliable,\(^{173}\) and therefore, despite the scale, expense, and technology employed, Janssens’s quest had failed.

Despite the fact the film’s production is centralised within the work I argue that although beautifully cinematic, as a contemporary artwork *Black Drop* lacks a critical self-awareness regarding its construction. For example, although *Black Drop* discusses and analyses the specific technologies employed by other practitioners, it does not articulate a reflection upon the travel, expense, and authoritative stance of its own mode of production. As the art historian T.J. Demos writes, the ‘return’ of contemporary European artists to post (or neo) colonial sites can function, in meaningful ways, to redress how Europe has imposed itself on other parts of the World.\(^{174}\) But the ‘return’ to the sites of the Janssen expedition (and before that Captain Cook’s expedition), undertaken in Starling’s film act to mirror the issues inherent in these endeavours. By not acknowledging how *Black Drop*, and its production methods, repeat these acts, as well as its insistence on privileging European figures, technologies, and travel, I argue that Starling’s film manifests itself as another layer of colonial imposition.\(^{175}\) However, *Black Drop* is relevant for me however to consider, as it provokes questions that illustrate some of the potential issues that can arise in the pursuit of conflating art and science, research, and practice.

*Black Drop* has been useful to my thinking concerning *Mean Time* especially as each film references both the technologies which are the subject of the artworks as well as the technologies that the artworks themselves are created with. In *Black Drop* this is the photorevolver and the daguerreotype, in *Mean Time* it is the postcard and the copy scanner. In this way, each film acts to dramatize developments in photographic technology, by returning to their historical origins and linking the contemporary moment to specific events to which the work may not obviously seem connected to. An early example of this self-referential approach to a medium - rendering it as simultaneously

\(^{173}\) According to *Black Drop*’s narration Janssen’s photorevolver was designed to compensate for “human error in timing the crucial moments of Venus’ visual contact with the edge of the Sun”.


\(^{175}\) For specific discussion of celestial transit in relation to Western and Indigenous forms of observation see Jodi Byrd (2011) *The Transit of Empire: Indigenous Critiques of Colonialism*, University of Minnesota Press.
subject and form - is Miguel de Cervantes’ metafiction *Don Quixote*. In the novel, the mode of communication – the printed book – is self-consciously addressed by the fictional protagonist: a figure who is twice-over a product of this technology. First, he is the character created by Cervantes, and secondly, he is the self-fashioned chivalric knight formed by the books that he, Don Quixote, feverishly reads. Despite the fact that the physical distances traversed are very different, these works all stress and query the motivation to travel, especially when that travel is undertaken as a quest.

1.15 Sound as time

Through its editing and structure, *Mean Time* conveys a conscious segmenting and overlapping, embracing a cacophony of forms: audio, visual, still, moving, text, and speech. This arrangement recognises the multiplicities at play in this artwork and assists the viewer in experiencing an embodied or visceral response to the film. The ambient sound in the film does not recede into the background to operate at a subtle level, instead, this element is intentionally foregrounded as a recurring and intermittent disturbance that permeates the work. Most of the film’s audio is not synchronised to the image, but rather to the words. The sounds (which are instrumental and foley), and the voice-over in the film counter the stillness of the photographic images presented, being that they “share the character of temporal movement” and are ways of registering or measuring the passing of time. Thus, the audio in *Mean Time*, particularly early in the film where the viewer is presented with a ‘blank’ postcard, also functions to remind us that time, rather than movement, is the defining element of film.

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176 Commonly referred to as *Don Quixote* the full title of the work is *The Ingenious Gentleman Don Quixote of La Mancha*. The novel was originally published in two parts, first in 1605 and then in 1615.
177 *Don Quixote*’s journey is through Spain and in *Mean Time* it is between Europe and the Americas, whilst *Black Drop* stretches across the globe from France to Hawai‘i.
The blank postcard in Mean Time is never turned over, its image is never revealed. Yet the voice-over compels the viewer to continue to look at it. This interdiction of the image is a strategy or approach which is emphasised in the following sequence in which the blank reverse of the postcard obscures the view of an array of picture postcards that are presented in quick succession.
The monologue (read by me, the author of the text and the maker of the film) can be apprehended as what the film theorist and experimental composer Michel Chion’s term, an acousmêtre, a faceless voice which conveys “the power of ‘seeing all’” an omnipotent presence speaking across, and between, time. In some parts of the film the audio functions as a counterpoint to the visuals, accompanying them yet remaining independent, emanating from another place (or world) than the image and registered by the “ear that is the eye”.

1.16 Looking at photographs through film

Volker Patenburg writes that, with “films in which photographs play an important structural role, the threshold between the two media is given a theoretical value and once again marks the point at which film can make the transition from depiction to theoretical statement.” By engaging with this way of looking at the photograph through the apparatus of the camera and re-presenting it through the medium of moving image, Mean Time can be contextualised in relation to the ongoing tendency in contemporary moving image practice, to incorporate the photograph as a material object, a form of apparent proof, and an artistic mode of address.

Examples include Hito Steyerl’s Lovely Andrea (2007) in which the artist is shown tracking down a photograph that she remembers being taken but has not actually seen of herself in the 1980s, when she worked as a Shibari (rope bondage) model in Japan. In the film, the camera and Steyerl follow the image, from a personal collection, on a computer in Berlin, where the photograph exists as a digital file, to an archive in Tokyo, where she rediscovers it as she flicks through the pages of a magazine. Another work that explicitly uses moving image practice to interrogate how photographs affect and inform is Susan Schuppli’s Can the sun lie? (2014). Schuppli’s film explores a historical example of the use of the photograph as evidence during legal proceedings in North America in 1886. The film considers the distrust of the photograph as a form of proof, analogous to contemporary Western science’s mistrust of indigenous (First Nations) forms of observation. Schuppli’s film does not ask whether the image presented in the photograph is authentic - or not - but, rather, whether a photograph is a more or less objective observer than a human. These works question (and reassess)

182 Ibid. p.135
183 Volker Patenburg (2015) Farocki/Godard: Film as Theory Amsterdam University Press p.177
the evidentiary capacity of the ‘authentic’ photographic image by stressing the photograph’s ontology as an explicitly material presence across developing technologies and suggest the enduring potential of the photograph as a vehicle for research.

1.17 Conclusion

A photograph, says Sontag, is at once “both a pseudo-presence and a token of absence”. Photographs depict things, people, times, or places that are out of reach, and no matter how old, worn, faded, or out of focus, they are often treated with reverie, as though they can somehow, by the capture of the camera, function in lieu of the object of desire. The photographic postcards in Mean Time come under this category. As the film suggests that they are “attempts to contact or lay claim to another reality” or time - or rather other realities and times. In Mean Time, I use the photograph (the still image) to amplify the fact that I cannot access the original time, event, or place I am working with, and further to stress how the photograph has historically been a stand-in for this encounter with the world and with time. As Patenburg writes, when presented in a film, the “still photo not only stands for the past tense but also becomes an allegory for time as a whole.”

In reflecting on the making of Mean Time, I am conscious of how my engagement with the postcard throughout the process constantly oscillated from analogue to digital, from object to screen. A question arises then concerning how the digitisation of these source materials, and indeed the final presentation of the film through digital media, impacts the viewer’s experience of it. Does this digitisation perform what the photography scholar Joanna Sassoon terms a ‘translation’, enacted by moving the document across media, or as Charlie Gere - with the media theorist Friedrich Kittler suggests, is the main theoretical feature of digitisation that it acts to “erase the difference among individual media”, ultimately functioning to level all technologies which came before it?

This chapter and the main work discussed, Mean Time, address world-making and un-doing, by exploring how technologies - including photography and the line - are employed in processes of radical un-doing, which are counter to their possible social or cultural benefit. An example

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185 Ibid.
186 Patenburg Volker (2015) Farocki/Godard: Film as Theory Amsterdam University Press p.175
is photography’s potential to visually preserve a place, or an object, being reoriented (especially during acts of occupation, war, and conflict) towards its destruction.\(^{189}\)

Ultimately, *Mean Time* consciously ramifies, rather than clarifies, its subjects in order to reveal their entanglement and to complicate the notion of a singular *master* narrative. The film then can be read as a tentative attempt to destabilise or to undo the privilege of the Eurocentric male gaze and its world-making claims of mastery over ways of looking and thinking, which we might refer to as observation.

\(^{189}\) Another example discussed in chapter three of this thesis is the ways in which nuclear technology has been presented as means by which to maintain, through the extensive testing and manufacturing of nuclear weapons as ‘deterrents’, long-term international peace.
Chapter 2: Parataxis

2.1 Introduction

This chapter explores and analyses how, in addition to forms of minor photography, I used woven objects in my research and practice. In particular, this part of my thesis considers the artworks I made for the exhibition Parataxis; an installation formed of Revolution is a Living Language; a limited-edition printed textile of a digital collage and Looking and Being Overlooked; a 20-minute silent moving image work of the printed textile. These works were co-commissioned in 2021 by the Centre for Research Collections (University of Edinburgh) and the A.G. Leventis Foundation (Greece) to accompany Edina/Athena (2021-2022) an exhibition based around events and artefacts related to the Greek revolution occurring in parallel to the Enlightenment in Edinburgh. Parataxis was presented as a solo exhibition in the anteroom of the University of Edinburgh’s library, a space that viewers had to pass through in order to enter, and exit, the Edina/Athena exhibition, which itself comprised paintings, photographs and objects, made in the period of, or relative to, the Greek revolution of Independence. Parataxis, therefore, operated both as an introduction, and an afterword, to the artefacts that formed the Edina/Athena exhibition.

Fig. 35 Still of the test footage made for the commission proposal

\[190\] Due to its classically informed architecture and historic links to science and philosophy, Edinburgh is sometimes referred to as ‘the Athens of the North’.
2.2 Parataxis

When I was invited to submit an idea for a commission of new artwork, responding to the bicentenary of the Greek Revolution of 1821 and its temporal overlap with Enlightenment discourse in Edinburgh,\textsuperscript{191} I proposed an artwork that would foreground female experiences and contributions, relative to the exhibition themes, by bringing particular figures, symbols, and structures into assembly: an artwork realised as two parts, reflected in the title: Parataxis, from the Greek ‘para’, meaning beside, and ‘taxis’ meaning an arrangement or comparison.

One of my aims was to create a visual dialogue between notions of political revolution, historic interconnectivity, and social rebellion, so that historic movements, such as Greek independence and the Enlightenment, could be read not as enclosed occurrences, but as events woven into the fabric of a time of immense social, political and scientific change. This is explored in the work, both through transformative acts of un-doing, and by a consideration of the idea of the marginal as an overlooked figure or a place, and a site through which transformation and revolution occurs. Manifesting this particular artwork as two distinct yet interdependent pieces enabled me to further expand on my use of the referent as a conceptual and material mode in my work and research, incorporating concepts of duality: the present and the past, Athens and Edinburgh, Revolution and Enlightenment.

The resulting artworks were; a limited-edition printed textile entitled Revolution is a Living Language and the moving image work Looking and Being Overlooked, which views the printed textile in close detail, showing part of the fabric being un-done, pulled apart thread-by-thread. I formed the titles for these two works before they were created or even fully envisaged. This method of naming a thing that is not yet made was beneficial to my process as it served as a guide when I was making the work, a reminder of what I intended each piece to do.

The title of the printed textile, Revolution is a Living Language, references the 1853 lecture ‘On the Living Language of the Greeks’, given by Scottish scholar John Stuart Blackie (1809 –1895), who taught Greek at the University of Edinburgh. In his lecture, Blackie argued - partly as a mark of respect for the recently formed republic - that the Greek language should be taught and spoken with the

\textsuperscript{191} Shown as a component of the exhibition ‘Edina/Athena: The Greek Revolution and the Athens of the North, 1821–2021’, which was created to commemorate the bicentenary of the Greek Revolution of 1821. The revolution resulted in the Greek War of Independence which saw Greece gain independence from the Ottoman Empire (which had occupied the country since the mid 15\textsuperscript{th} century) and the establishment of the first Hellenic Republic.
modern pronunciation;\textsuperscript{192} that it should not be resigned to the past but that it is living, and evolving, in the present. The title, \textit{Looking and Being Overlooked}, has perhaps more practical associations. It draws attention to two main aspects: the capacity of the camera to look but not to see and the propensity of the margins or marginal figures - especially women - to be overlooked. The work stresses the ability to be visible but to remain unseen and unrecognised, as was the case with the Edinburgh Seven, some of the first female students to be matriculated at any British University (1896) who fought to study Medicine at the University of Edinburgh.

\textsuperscript{192} Exhibition catalogue (2021) \textit{Edina/Athena (1821 – 2021) The Greek Revolution & the Athens of the North.} Edited by Alasdair Grant. Published by University of Edinburgh School of History, Classics and Archaeology.
2.3 Images of Women

I began my research and development of the work by looking at perhaps the most recognisable depiction of women relative to both Athens and Edinburgh with regards to war and revolution: the east frieze from the Parthenon which portrays the ritual preparations for the festival of Athena.

The large marble frieze, commonly known as 'Slab V', features well-known gods and goddesses including: Zeus, Poseidon, and Aphrodite, who either look at each other or out from the scene. The human figures, although positioned in the middle, seem to be marginalised or ignored. This ‘central scene’ of the frieze however is the aspect I was drawn to. In it a newly woven peplos, a large cloth worn as a garment by women in ancient Greece, is offered for inspection. This particular peplos was woven specifically for the statue of Athena and was believed to possess “…the cultic value of renewing the power of the goddess”.

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193 The Parthenon was built between 447 and 432 BCE on the Acropolis, a rocky hill in Athens, Greece.
This peplos was woven by a group of Arrhephoros, young girls who served in the cult of Athena during the Great Panathenaic festival that occurred every four years. The peplos would have been a ‘story cloth’, depicting and commemorating past wars and victories, and its inclusion in the scene draws attention to the fact Athena was a goddess of war and the patron of weaving. Athena herself was said to weave story cloths in which humans fatefully challenged nature and the gods. In the myth of ‘Athena and Arachne’\textsuperscript{195}, the weaver Arachne boasted of her skills to the extent that Athena challenged her to a contest. Whilst Arachne wove a cloth portraying gods tricking mortals and seducing women, “Athena, for her part, grimly wove stories of mortals who had lost contests with the gods and been soundly punished”.\textsuperscript{196} According to the myth, when Athena saw not only that Arachne’s cloth insulted the gods but that it was also expertly woven she tore-up Arachne’s weaving and turned her into a spider.

The British Museum, where the frieze is currently held, describes the child presenting the peplos as a boy, yet the Acropolis Museum in Athens proposes that the child is female, a position supported by several scholars.\textsuperscript{197} As it is known that the Arrhephoros were those weaving the cloth, it would also seem logical that the peplos would have been taken to the festival by one of these young girls. If this

\textsuperscript{195} As told in the epic poem Metamorphoses (8 CE) by the Roman poet Ovid.
is the case then, as the Greek author and professor of Classical Archaeology Olga Palagia writes, “The Parthenon frieze thus provides the sole evidence of the role of Arrhephoroi in Athena’s festival”. 198 Young female Athenians mediated between the world of humans and the realm of the Gods, and they used the woven cloth as a conduit, or connecting object, with which to do so.

The fact that the evidence of this ritual activity was, and remains, rendered in marble, testifies to the importance of the frieze as a record, as a visual archive of ancient Greek lives and beliefs, as well as to the ability of marble to survive millennia. Infamously this visual document, although carved in stone, was ‘undone’ and put into motion, broken apart and sent on a journey from one place, one culture, and context, to another; taken from its site in the world to a museum of the world when (between 1801-1812) Thomas Bruce (the 7th Earl of Elgin) oversaw the removal of part of the Parthenon so that it could be sent from the Acropolis to Britain. 199 According to the Greek archaeologist Yannis Hamilakis, Lord Elgin “used his position of power as British Ambassador to the Ottoman Empire and the favourable political climate during the Franco-Turkish war” to visit the Acropolis initially to “draw and make casts of the Parthenon sculptures in order to decorate his mansion in Scotland”, but when he arrived in Greece he requested “permission to 'excavate' and remove material from the monument.” 200

As with the real photographic postcard, the scene in Slab V forms only a partial account of the context from which it was taken. Like the photograph, its taking was done, apparently, in order to preserve it, to save it from the forces of entropy.

Textiles for the most part do not survive time; they become worn-out, frayed, and faded. They are material assemblages that disintegrate and return to fibres, then to almost nothing, sometimes leaving no trace of their existence. Elizabeth Barber, a scholar of ancient and contemporary linguistics and textiles, proposes that this simple fact of material difference skews how we read and understand history. Although the Stone, Bronze, and Iron Age ages heralded immense human developments in

199 The essayist Eduardo Galeano wrote that the “Parthenon had already been devastated by weather and war. Erected to the eternal glory of the goddess Athena, it endured the invasion of the Virgin Mary and her priests, who eliminated several figures, rubbed out many faces, and mutilated every penis. Many years later came the Venetian invasion and the temple, used as a powder house, got blown to pieces. The Parthenon was left in ruins. While the sculptures that Lord Elgin took were broken and remain so, they speak to us about what they once were” Trans. Mark Fried (2008) Mirrors: stories of almost everyone Nation Books pp.44-45
the technological prehistory of humanity, Barber, and others, state that before this there was a ‘string revolution’. Developing the techniques of making string and rope made it possible to create nets, shelters, rafts, and sails; types of proto-weaving that “enabled us to move out into every econiche on the globe during the Upper Palaeolithic” period. Furthermore, according to Barber, this largely overlooked revolution, this form of world-making, was led by women, and so its marginalisation concerns both the forms of material culture that are overlooked, and the omission of the female producers of this technology and revolution.

The underrepresentation of women grew as a theme in this work, and I began to consider examples of (real) women and their relation to the Enlightenment period in Edinburgh. Figures, rather than structures, related to this site, photography, and its relationship to the ideals of the Enlightenment came to the fore in my research. These figures included the ‘washerwomen’ of Calton Hill, who, as featured in Thomas Begbie’s 1887 photographs took their linens to dry and to be sun-bleached, on the hill, on the public side of the wall which delineated, the civic space on Calton Hill, from the observatory and the clocks, the scientific arenas of the Enlightenment.

![Fig. 39](image)

\[\text{Washerwomen on the Calton Hill by Thomas Begbie (1887)}\]

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202 ibid p.45
The washerwomen would have walked up the steep hillside of Calton Hill carrying baskets heavy with wet fabrics. In *Revolution is a Living Language* I digitally erased them from the scene, but their linens are still discernible. I decided that these women had better things to do than to be captive subjects caught by Begbie’s camera. They have gone, and instead, overlaying this scene I inserted an image of Laskarina Bouboulina, a Greek woman, naval captain, and revolutionary leader shown in a pose as depicted in traditional paintings and on Greek banknotes, pointing out to sea, suggesting a call to arms and to action.

![Fig. 40 Greek 50 drachma banknote from 1978](image)

Bouboulina was born in 1771 in Constantinople during the reign of the Ottoman Empire and died in the First Hellenic Republic (the interim Greek State) in 1825. Her lifespan then overlaps with the removal of the ‘marbles’ from the Parthenon. Bouboulina’s involvement in the Greek Revolution was evidenced by her deployment of naval strategy, her bravery, and her financial contributions to the cause. In my work, *Revolution is a Living Language* I replaced Bouboulina’s face with the word ‘Ελλάς’ (Greece) in the modern Greek alphabet. In the scene that I stage, she points to a group of women, the ‘Edinburgh Seven’ whose fight to study was eventually successful but, due to protests from male peers and some university staff, the women were prevented from graduating and qualifying as doctors. In 2019, some 150 years after their enrolment, they were finally awarded posthumous honorary Bachelor of Medicine degrees by the University of Edinburgh.

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203 Named after the ancient Greek play *Seven against Thebes*, these women were Mary Anderson, Emily Bovell, Matilda Chaplin, Helen Evans, Sophia Jex-Blake, Edith Pechey, and Isabel Thorne.

204 *Edit Magazine*, 29th July 2019 University of Edinburgh: https://www.ed.ac.uk/edit-magazine/supplements/representing-the-edinburgh-seven
2.4 Pulling and placing

Employing the Greek term ‘Parataxis’ as my exhibition title points to how the constituent artworks (the printed textile and the video), when brought together, foster an analogy between the ideas explored in the works, and the materials and methods, through which I made these artworks. In Parataxis I have put ideas of revolution, image making, and weaving into dialogue with specific cultures and histories through conceptual and physical processes of pulling: threads, inks, and ideas and by placing side-by-side; images, technologies, and histories.

The art historian Julia Bryan-Wilson writes about how textiles incorporate the notion of the body: a body that can be constituted as physical, social, or political.205 Thus as well as invoking mythical Greek figures, such as Helen of Troy who wove images of the Trojan War, or Penelope’s repeated weaving and un-doing of the shroud in Homer’s epic poem The Odyssey, the printed images of female figures onto a woven fabric in Revolution is a Living Language evokes associations with multiple forms of revolutionary action and historical events. These include the industrial revolution which, created radical changes in textile manufacturing, from hand-made to machine-produced fabrics, and acts of revolt against these forms of ‘progress’. As Bryan-Wilson says, “Textiles have been central to both the histories of capitalism and to organized resistance against its ruthless systems of production. Some of the first acts of workplace sabotage took place when textile workers – mostly men but also women – of early nineteenth-century England destroyed mechanical looms ...”.206

2.5 Revolution is a Living Language

With the exception of the meandering line of dashes, reminiscent of both waves and stitches and the image of Laskarina Bouboulina, the textile image is the result of a digital collage created from existing photographs; a tableau of people and structures.

I have irreverently reworked most of the images I incorporated into Revolution is a Living Language; some parts have been erased whilst others have been moved, scales have been altered and associations across time forced. The Arrhephoros in the central scene from Slab V of the Parthenon retains her position in the middle of this newly staged arrangement, but, in my artwork, I elevate and enlarge her, placing the word ‘revolution’ like a flowing banner in Greek above her.

206 Ibid. p.7. The textile workers that Bryan-Wilson refers to were known as the Luddites, a secret group of textile workers in 19th century England whose acts of sabotage and rebellion lasted from 1811-1816.
Fig.41 Revolution is a Living Language (2021) Shown here in the University art store prior to installation.

The collaged image is printed onto raw (loom state) unbleached linen fabric using a CMYK (cyan, magenta, yellow and black) halftone printing process in which each ink is individually pulled - by hand - across a differently exposed screen and in this way, each screen functions like a photographic negative. The action of the squeegee being pulled across the screen’s surface is akin to the movement of the line of light across the scanner bed in my film Mean Time: an action that transforms the analogue image into a digital file.

(The three images below are from the production of the screen print and show; Fig.52a, an acetate positive made from the digital collage image file, Fig.52b, the corresponding screen made by exposing the silk screen to the acetate which is then used when pulling the cyan ink and Fig.52c, the silkscreen used when pulling the yellow ink.)
Fig. 42c

Fig. 43

Still from moving image work *Looking and Being Overlooked* (2021)
2.6 Unravelling

Thinking about un-doing, particularly in relation to textiles, brought my research to a consideration of unravelling: the removal of the weft (the yarn which horizontally traverses the static strung yarn of the warp) as a form of un-doing that “reduces cloth to its element”; to single threads and fibres, whilst the warp threads which are left behind retain “the memory of the cloth they constituted”.  

![Diagram of warp and weft in weaving. Creative Commons](image)

Accentuating the process of unravelling emphasises associations between text and fabric, as well as the relationship of specific words to my thoughts about and, methods of, un-doing. The prefix ‘un’, negates the word that follows it, and carries negative connotations; the unwell, unsatisfactory, the untrue. But in the case of ‘unravel’ this is complicated by the fact that ‘ravel’, as well as denoting an act of doing, of the making of “A tangle, a knot; a tangled mass, a cluster” also means to undo; “to ravel out the edge or end of (something woven or twisted); occasionally, to chafe or irritate by friction”. According to Roland Barthes, thinking of the making and unmaking of textiles in this way mirrors the process of textual analysis, which he says unravels text in order to distinguish its structure. Barthes uses textile as a metaphor here because “Textual analysis insists in effect on representing text as a tissue (...) as a braid of different voices, of multiple codes, at once interlaced and unfinished”. (Un)ravelling then signals a loop of doing and un-doing.

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208 We might think here of Shakespeare’s *Macbeth* “Sleep that knits up the raveled sleeve of care, The death of each day’s life, sore labor’s bath, Balm of hurt minds, great nature’s second course, Chief nourisher in life’s feast” where ‘ravel’ is used to describe Macbeths deteriorating mental state. William Shakespeare, (1606) *Macbeth*, Act II, Scene II.
210 OED Online: [https://www.oed.com/view/Entry/74328?rskey=M9U7WA&result=2#eid3657471](https://www.oed.com/view/Entry/74328?rskey=M9U7WA&result=2#eid3657471)
As the translator of Barthes’ *Textual Analysis of a Tale By Edgar Poe*\(^ {212}\) notes in the preface, Barthes’ reading of, and writing with, the Poe ‘tale’ is interlinear; “Barthes transcribes Poe’s text absolutely literally, line by line (...) he writes his reading ‘between the lines’”,\(^ {213}\) between the sections of chosen text which Barthes has termed *lexias*.\(^ {214}\) By extending the textile metaphor further, we may consider that, in this essay, Barthes used the Poe text as the warp, the static threads held in tension, the already laid out lines of text through which his own text weaves in order to make a new material. Barthes essay is an intertextual work that both *unravels* the fabric of Poe’s ‘tale’ as a whole and by writing *with it* more than a century later, picks at its essence to pull parts from Poe’s story and to entangle them in a contemporary conversation, in this case, about the relationship between scientific experimentation and symbolic representation.

### 2.7 Weaving war

From the Dada artists to contemporary practitioners such as Peter Kennard,\(^ {215}\) anti-war artworks have been realised through collage, particularly photo-montage, as a comment on forms of militarism operating at the time these works were produced. In addition to visualising a political message, the cut-up newspaper images and texts of the Dadaist and the high-resolution photographs used by Kennard also comment on the concept of ‘progress’, particularly technological progress, as the apparent necessary outcome of chronological history – that technology can be used as a gauge of a culture or groups progress through historical time. For instance, in Kennard’s print *Haywain with Cruise Missiles*, John Constable's famous (and highly reproduced) painting *The Haywain* (1821)\(^ {216}\) is shown, anachronistically, “carrying the Cruise Missiles which were about to be deployed in Greenham


\(^{212}\) The tale that Barthes analyses is *The Facts in the Case of M. Valdemar* (1845) by the American author Edgar Allan Poe. The story is about a mesmerist putting a man into a state of suspended hypnosis at the very moment of his death.

\(^{213}\) Ibid. p.1


\(^{215}\) Kennard, who has created images for the CND said “In the 1970s I noticed that images of nuclear weapons had become completely normalised, even to the extent that a chain of poster shops were selling a heavily airbrushed, uncaptioned photo of a mushroom cloud as a glossy poster to be hung up in your home” as quoted on the CND’s website: https://cnduk.org/60-faces-peter-kennard/

\(^{216}\) As a side note, when I was growing up we had a badly reproduced copy of John Constable’s painting, *The Hay Wain* (1821) in a fake gilded frame on our living room wall. Constable was originally going to title this painting *Noon*. 
Common"\textsuperscript{217}, by a technology contemporaneous to the time of the painting: a wooden horse-drawn wagon, known as a wain.

![Image](image_url)

**Fig. 45 Haywain with Cruise Missiles\textsuperscript{218} (1980)\textsuperscript{219}

Peter Kennard. 26 × 37.5 cm Chromolithograph on paper and photographs on paper

As potent as the photomontages produced by Dada and artists such as Kennard are, textiles - a medium that predates the masterworks of landscape painting, photography, and printed text - have also operated as sites for anti-war statements through forms of collage. Although fabrics, textiles, and cloth are primarily created for physical use; as garments, blankets, towels, and so on, historically, textiles have also functioned as visual documents. Throughout the world, whether as functional items


\textsuperscript{218} The gallery text accompanying the work when it was shown at the V&A in 2011 read “In this subversive photomontage, three nuclear warheads are inserted into the idyllic East Anglian countryside depicted in John Constable’s famous painting The Hay Wain (1821). The impetus for this work was the proposal to home US nuclear cruise missiles in rural East Anglia. It was also a response to a Ministry of Defence leaflet that portrayed the missiles in delicate watercolours” https://collections.vam.ac.uk/item/O220382/haywain-with-cruise-missiles-photograph-peter-kennard/

\textsuperscript{219} In 1983 an offset lithograph was produced on which this quote by Constable was overlaid at the top right-hand corner of the image: “There has never been an age, however rude or uncultivated, in which the love of landscape has not in some way been manifest” (1836).
or conceptual devices, assemblages of fibres and images have operated as another form of language, and resistance when writing or speech is either inaccessible or denied.

For example, the African American artist Faith Ringgold’s piece, *No More War Story Quilt Part II* (1985) incorporates fabrics, printing, and text in a single artwork that aims to draw attention to the lack of public awareness of the experiences of African American soldiers.

![No More War Story Quilt Part II (1985) by Faith Ringgold](image)

As Julia Bryan-Wilson writes, quilted textiles can operate (as collage does) across multiple modes of communication at the same time because the ‘quilt’ is the site “where a scrap of fabric – whether leather, camouflage, or lamé – might signal stylistic affiliation, professional groupings, or other sets of identifications”\(^{220}\). For instance, in Ringgold’s piece, camouflage panels are overlaid onto brightly coloured tie-dye sections that she has sewed together as a patchwork. The text banners set above and below provide accounts of Black men serving in the US military. The five panels function as abstract portraits of the unseen soldiers, and the tie-dye fabrics forming the background evoke the

overlapping aesthetics of counterculture, psychedelia, and the peace movement of the 1960s and 70s.

Elizabeth Barber observes that stories of both real and mythical events have historically been told through textiles\(^{221}\). The importance of this form of communication, resistance, and recording in relation to militarism is reflected in the fact that, as Bryan-Wilson writes, “The bulk of war-themed craft focuses on fabric”.\(^{222}\) As an example of the relationship between weaving and war Barber offers hand-woven rugs made in Afghanistan during the Civil War (1989–92) depicting “Stinger missiles downing flaming Soviet Helicopters”.\(^{223}\) The ‘Afghan war rug’ is at once excessively material and visual, and both inherently traditional\(^{224}\) and patently modern. These rugs are export items made to travel and cross (cultural, geographical, and political) borders. Since 1979,\(^{225}\) the year that the Soviet forces first invaded Afghanistan, these rugs have indexed symbols of war and often feature images of tanks, drones, and AK-47 machine guns, in place of, or in combination with, traditional Afghan imagery of flowers, dragons and geometric patterns.

As anthropologist Brian Spooner writes, “Afghan war rugs represent the first effort of Afghan weavers to cater directly to an international market”.\(^{226}\) Jamal J. Elias, a scholar of Islamic thought and visual culture suggests that the repetition of specific patterns and imagery, particularly noticeable since 9/11 indicates that after 2001 the “weavers were adhering to templates provided by rug merchants” who were selling them in large cities such as Kabul, hoping to “appeal to an American souvenir market”\(^{227}\) which was supported by the large numbers of American workers and military based there.


\(^{223}\) ibid p.154

\(^{224}\) “Carpet-weaving began at least two and a half millennia ago, probably in central Asia. The earliest rug that has come down to us in any form was excavated at Pazyryk in the Altai Mountains of southern Siberia, preserved in ice in the tomb of a Scythian prince. This woollen rug, which has over 200 knots to the square inch, is dated to the period immediately following the Achaemenian Empire (550–330 BC), suggesting royal patronage. We know the Achaemenians borrowed designs from the Assyrian Empire, with the craft of making carpets perhaps nurtured for generations in royal workshops. Textual evidence indicates that production continued at a high level of patronage under the Sasanian Empire (AD 224–651), through the Arab conquest and the emergence of Islamic civilization in the 7th century AD, down to the present time.” Spooner, B. (2011). Afghan Wars, Oriental Carpets, and Globalization. Expedition, 53 (1), p.12

\(^{225}\) The exact evolution of the ‘war rug’ in Afghanistan is somewhat unclear since “modern weapons were seen in Afghan rugs produced in the Baluchistan region beginning in the 1930s” although these early 20th-century rugs were not intended for export. See William Charland (2011) *Art Education*, Vol. 64, No. 6 pp. 25-32 Published by: National Art Education Association p.28


Afghan war rugs, now, and before the Taliban’s return to power, are available to buy online via websites such as eBay, or Etsy, and from an American website called warrug.com. The rugs problematise notions of the memento, representation, documentation, and tradition because, like the photograph, woven images unambiguously speak of the history of industrialism and globalisation, of the unique object and the mass-produced item, the cultural artefact, and the tourist souvenir. Unlike the photograph, textiles are rarely taken seriously as vehicles of dissent by Western military authorities. As the textile scholar Ariel Zeitlin Cooke has observed, the authorities do not treat “subversive craft objects” as holding the same potential insurrectionary power that books or films might have.

Following a period of offensives by the Taliban which began on 1st May 2021 and continued until 15th August 2021, the country previously known as the Islamic Republic of Afghanistan from 2004 – 2021 became, under Taliban rule, the Islamic Emirate of Afghanistan.

“These rugs, which come in a variety of sizes and qualities, derive from a tradition of oriental carpet-weaving that began to attract the attention of Western rug collectors in the late 19th century. Unlike the classic museum pieces that were produced on vertical looms in the cities of western Asia for use in palaces and grand houses, war rugs came from horizontal looms in small tribal communities of Turkmen and Baloch in the areas of central Asia on either side of the northern border of Afghanistan.” Spooner, B. (2011) Afghan Wars, Oriental Carpets, and Globalization. Expedition, 53 (1) p.11

One of the most well-known works by the Japanese photographer Ishiuchi Miyako is her ongoing series *Hiroshima* (2007- present), in which she photographs objects from the archive of the Hiroshima Peace Memorial Museum donated by the families of those who died in the atomic bombing of Hiroshima on the 6th of August 1945. The items of material culture which Miyako selects to document are things that the victims would have had direct bodily contact with, including shoes, lipstick, and hairbrushes and items of clothing, dresses, shirts, and socks belonging to men, women, and children.

Fig. 48

*Hiroshima #9 Ogawa Ritsu* (2007) Ishiuchi Miyako
Chromogenic print 187 x 120cm
Miyako currently uses flat neutral light when photographing them although she initially had laid these garments on top of lightboxes. The effect in these earlier works was that the clothing seemed suspended in space (and time), sitting somewhere between an X-ray and a photogram. This treatment made the missing body seem more tangible, and the threads and fibres - which remained on the tattered, ripped, and sometimes bloodstained clothing - visibly perceptible. The existence, or survival, of these textiles, then attests to the fragility of the human body.

Looking at textiles through the camera, and in its products; the film or photograph, seems to perform a translation that enables a different type of viewing. When looking at a body, or a piece of fabric (particularly an item of clothing), viewing oscillates between different registers. We switch between the whole garment (the whole body), and then the details (the parts). When seen in close-up details such as interwoven threads or a birthmark can appear both alien and independent of the whole. In Miyako’s *Hiroshima* series, the garments are represented in photographs at their actual scale. This allows the viewer to look at both the whole object and the details of its materiality, how it was made; woven, knotted, or stitched.
Julia Bryan-Wilson writes that woven objects form an important part of “the ever-increasing traffic in mementoes of disaster, the tangibility of memorialization, and the relation between textile design, tradition, religious ritual, and global catastrophe”.231 As discussed in chapter three of this thesis, Kili bags, hand-made white cuboid handbags woven from dried Pandanus leaves and coconut fibres fall under this category. They were created initially by Bikinians who had been forced, by nuclear testing in the Marshall Islands, into exile on the island of Kili. An outcome of the US Governments’ ‘Kili Development Project’, the bags were produced explicitly as an export item and a means of subsistence for the displaced Bikinians.

Fig. 50a
Kili bag made and brought from the Marshall Island in 2019 – shown in my studio

Fig. 50b Detail of Kili bag
Like the Afghan war rugs, Kili bags are created in relation to a particular context of occupation and militarisation that hybridises traditional weaving methods with modern forms and aesthetics influenced by the forces (nations) controlling (governing) their country. For the scholar James E. Young, who writes on memory and genocide, memorialising textiles “show memory as a physical activity, a material process”.²³² In woven work we can see the structure - the warp, weft, stitch, and knot – which is both the display and the scaffold. Therefore, perhaps more so than other art and craft mediums, textiles make perceptible the time and labour involved in their production: the necessity of duration and persistence. When made by those culturally and historically connected to sites of war and militarism, they read as material manifestations of survival and endurance.

Fig. 5.1 Rug currently for sale on warrug.com

²³² James E. Young (2005) Living with the Fabric Arts of Memory in Weavings of War: Fabrics of Memory p.36
While the cuboid shape of the Kili bags and its minimal aesthetic (formed by the weaving together of clean white plant fibres over a wooden block) serves to occlude the horrors of nuclear testing, displacement, and colonial control, the Afghan war rugs make visually explicit the acts, objects, and mechanisms of militarisation. Like many tourist or souvenir export items, the Kili bag and the Afghan war rug are functional objects rendered ornamental and thus collectable, covetable, and deemed worthy of preservation.  

The relationship between the development of textiles and forms of ‘progress’ is evidenced by the central role of textiles - particularly industrialised weaving - in regard to global capitalism and the industrial revolution of the 18th century. How textiles and forms of ‘progress’ intertwine with militarism is reflected in the appropriation of the designer and social advocate William Morris’s *Tudor Rose* fabric to upholster the officers’ quarters on board the HMS Courageous, a nuclear-powered submarine which also carried nuclear weapons and was in operation from 1970 – 1992.

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*Fig.52 William Morris Tudor Rose fabric*

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233 Recent large-scale public presentations of Afghan war rugs include *Battleground: War Rugs from Afghanistan*, a travelling exhibition organised by the Textile Museum of Canada. 233 Afghan war rugs also feature in contemporary art exhibitions such as *Apocalypse Now: The Theater of War*, 233 displayed alongside films, prints, photographs and sculptures by a wide spectrum of international artists including Alexander Rodchenko, Martha Rosler, Bruce Conner and Francisco de Goya.
As Zeitlin Cooke observed, “despite the potential associations of cloth with war (through its use in flags, uniforms, and bandages) cloth usually conjures up powerful images of domesticity and comfort”, associations which are dissonant with militarism. This point is echoed by the contemporary British artist David Mabb who suggests that the Morris fabric was used in the nuclear submarine to “soften the experience of living inside a machine”. It could also be argued that the precise selection of the Tudor Rose fabric also acted to reinforce a sense of national identity, or to use Benedict Anderson’s term ‘community’, in its officers.

Fig. 53

Senior mess room on the HMS Courageous submarine shown as it is now, as a museum display.

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The juxtaposition of the natural shape of the flower with the man-made form of the submarine connects back to the descriptions of the nuclear tests and their photographic documentation which were accompanied by terms related to natural forms, such as ‘mushrooms’ and ‘flowering’, when describing these atomic explosions to the public. The US military also used terminology invoking life, growth, and nature, to name their nuclear test operations, for instance, ‘Operation Ivy’ (1952), and more covertly in their re-naming of islands such as Elugelab,\textsuperscript{236} code-named ‘Flora’.\textsuperscript{237} Like the imagery of the rose flowers on the woven upholstery in the nuclear submarine, they employed these names and terms to ‘soften’ and normalise the concept of nuclear warfare, and globally affecting large-scale militarised experimentation.

For Spooner both the production and the appeal of the Afghan war rug are dependent on “the divergence of East and West over the past 300 years”\textsuperscript{238}; or put differently, these rugs are of special interest due to their capacity to present the co-existence of, and tension inherent in, different formations of modernity. As the Afghan war rugs are attributed to a cultural group their imagery offers ‘other’ views of globally affecting events. The obvious use of photographs as a visual source material in the production of the war rugs can be seen in the incorporation of specific images, such as the still, known from TV footage, showing the planes flying into the Twin Towers. But unlike Morris’s Tudor Rose the effect of these images, manifest in a textile, is not to ‘soften’ or temper, but rather to heighten a visceral response to them. The translation of photographic images into hand-made woven rugs draws attention to the differences and similarities of these means of material representation and dissemination, and as such the Afghan war rug can be read as a site that collages ‘difference’ effectively.

\textsuperscript{236} Elugelab was an island that formed part of Enewetak Atoll in the Marshall Islands until it was vaporised by a nuclear test in 1952. This island is discussed in detail both in my film Apparent Time (2022) and in chapter three of this thesis.


\textsuperscript{238} Brian Spooner (2011). Afghan Wars, Oriental Carpets, and Globalization. Expedition, 53 (1) p.18
War rug dating from the early 1990s 122 x 188 cm. This rug was exhibited in the exhibition *Unexploded Ordnances - Afghan War Rugs 1979-2008* at the Denison Museum, Ohio, USA in 2008.
2.8 Looking and Being Overlooked

Filmed from above and in close-up, *Looking and Being Overlooked*, the moving image work constituting half of my exhibition *Parataxis*, views the printed textile *Revolution is a Living Language*, via a different optical mode: through the camera’s lens. It also observes the object at a different pace, lingering on details and visually traversing the surface in various directions. In this way, the work aims to both slow down and intensify the act of looking - to take control of what the viewer sees, and where their attention is drawn.

![Documentation of making the moving image work *Looking and being Overlooked* by filming the textile *Revolution is a Living Language* (2021)](image)

Given that *Parataxis* was a solo exhibition presented in parallel to the exhibition of historical artworks and objects related to the period of revolution in Greece, this work engages with the ways in which contemporary artworks can function as sites of interpretation. This capacity is particularly evident in how *Parataxis* mirrors the trend in museum practice of incorporating explanatory videos in exhibits. These videos (usually authored by the institution) are made to enable visitors to view rare or ancient objects at a proximity that is otherwise impossible or to ‘educate’ them about objects by restaging their production process. Playing on this tendency in museum presentation by showing acts of undoing, *Looking and being Overlooked* reverses the process, putting into question the role of the museum to preserve objects and deny their entropy.
No complete or totalising view of the print is shown in the film *Looking and being Overlooked*, whether as a full screen image or by surveying the whole textile. Instead the camera hovers over details (such as the corners of letters, hands), which, once reframed, and removed from the whole, are abstracted.

In both *Mean Time* and *Apparent Time* there is minimal movement both of the camera and the objects that it films whereas in *Looking and being Overlooked* there is a constant stream of slow movement. There are also the movements of, or within, the camera itself. Sometimes the camera moves across different axis’ and appears to follow a visual contour in the image; at other points, it slowly zooms in from a closeup to a macro view so that not only are the individual threads discernible, but singular fibres are made visible. At this extreme level of optical magnification, the viewer can see individual dots of ink which form this type of print, and, although at a distance, these come together to create greens, greys, oranges, and purples in *Looking and being Overlooked*, these hues are returned to their individual and separate constituent colours (cyan, yellow, magenta and black) and the image is reduced to a mass of dots.

*Looking and being Overlooked* is made to be experienced in a physical space, shown on a monitor approximately the same size as the framed and glazed textile *Revolution is a Living Language*. Unlike *Mean Time* and *Apparent Time*, which include recorded sounds, music and speech, *Looking and being*
Overlooked is intentionally made without audio. Whereas Mean Time and Apparent Time emphasise and create connections between images and sounds, Looking and being Overlooked stresses relationship between looking and movement. Looking and being Overlooked is a 20-minute segment that is plays on an endless loop, presented without gaps rather than the fixed durations of 9 and 11 minutes therefore, the time that the viewer spends with each part of Parataxis is self-determined. As the works are exhibited almost facing each other they cannot be viewed at the same time and the viewer has to physically move in, and around, the exhibition space to look at the works. The viewers movements then are akin to that of the camera: moving back and forth between the print and the monitor, like the zoom operation inside of the camera, standing back or stepping closer in order to view specific aspects of the work; as a whole, up-close or in detail.

![Fig. 57 Installation view of Parataxis (2021-2022)](image-url)
2.9 Conclusion

In writing about *Parataxis*, I have attempted to activate visual and conceptual relationships between historical and contemporary narratives and to consider how these may be retold or translated. I have considered the ‘parataxis’ inherent in the forms and subjects discussed, in assemblages of fibres and arrangements of images, in works of craft and contemporary art which, when placed side-by-side, speak to both the destruction wrought by war and militaristic forces and, at the same time, to textiles as sites of resistance and memorialisation. In the artworks which constitute *Parataxis* I have developed and explored processes of translation both between the digital and the analogue and between weaving and photography.

I have used ‘un-doing’ in *Parataxis* - and throughout my research - as a conceptual and physical process employed to reveal the constituent parts of an object or material and has enabled new ways to think with images and ideas. This method was informed by the concept of the ‘anachronic’, which the art historian Dan Karlholm describes as a way of working and thinking across “potentially multiple temporalities”\(^\text{239}\) considering both what an object, or image, was designed to do at the time of its production, and what it is doing now; what relationships it has and what these relationships might mean. I used this approach to reveal overlooked or inaccessible connections across histories, technologies, materials, and thought. In the works of *Parataxis* this led to the resuscitation of the female figures presented through artworks, sites that function as resequencing tools, which as the historian of applied arts Eva Kernbauer argued, are capable of “producing temporal incongruities and heterogeneities, and observing them in other domains of life”\(^\text{240}\).

\(^{240}\) Eva Kernbauer (2017) *Anachronic concepts, art historical containers and historiographical practices in contemporary art* in *Journal of Art Historiography* Number 16. p.9
Chapter 3: Apparent Time

3.1 Introduction

My short film *Apparent Time* (2022), is the final artwork produced as practice-based research for this PhD. The film centres on, and stems from, a photograph I first saw in the early stages of my research, and which remained latent in my mind. As with both art making and research, I sensed (or intuited) a significance in this specific image; manifested through “a practice that is paradigmatically as between art and non-art, activity and passivity – namely photography”.241 At first, I could not articulate what made this particular photograph significant. Years later I was able to enunciate its relevance to my research, and its potential meaning, by employing it in *Apparent Time*. As an essay film *Apparent Time* is an attempt to fulfil what the artist and filmmaker Hans Richter described as one of the primary tasks of the essay, whether in literature or film, to approach “difficult subjects and themes to render them into generally comprehensible forms.”242 In this chapter I consider objects and photographs which were brought into being as a result of specific historical events, including the testing of nuclear weapons in the Pacific Marshall Islands between 1946 and 1958.243

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Fig. 58 Map of Bikini Atoll showing the location of the ‘Bravo’ detonation. Creative Commons

243 Post-war nuclear testing by the United States began on the US mainland in Nevada in 1945. Nuclear testing by the United States in the Marshall Islands began in Bikini Atoll in 1946, one year before the United Nations designated that the Marshall Islands be administered by the United States Government (from 1947 to 1994) as a part of the Trust Territory of the Pacific.
An example is the Kili bag\textsuperscript{244}, a hand-made white cuboid handbag woven from Pandanus leaves and coconut fibres, made by Bikinians forced, by nuclear testing\textsuperscript{245}, into exile on the island of Kili. These bags were first created as a result of the Kili Development Project, an initiative of the Trust Territory Government in the early 1950s which sought to encourage the Bikini Islanders to make high-quality handicrafts or \textit{amimano} as tourist souvenirs and export items as a means to subsist on the small uninhabited island of Kili. \textsuperscript{246} The process of creating a Kili bag requires plaiting dried leaves over a wooden cube mould to create a negative space in the bag. The resulting uniform modern appearance of the Kili bags made them popular with Americans living or stationed in the Marshall Islands who took or sent them back to the US as gifts.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{kili_bag.jpg}
\caption{Photograph of a Kili bag from the collection of Trust Territory of the Pacific Archives held in University of Hawai‘i library.}
\end{figure}

\textsuperscript{244} An export item created through re-mastering traditional Marshallese weaving practices to manifest an aesthetic that combines nature and modernity in a simple form that is deployed to project a notion of unspoilt beauty, peace, modernity, and paradise.

\textsuperscript{245} US Navy had negotiated with the Bikini, Chief Juda, to ‘temporarily’ relocate the atoll’s 167 residents east to Rongerik Atoll. This relocation was unsuccessful and after several attempts with relocations to other atolls the Bikinians were eventually settled on the small empty island of Kili, almost 500 miles away from Bikini Atoll. According to the \textit{Historic Preservation Office and Archaeological Survey of Kili Island} report published by the Republic of the Marshall Islands Historic Preservation Office the soil on Kili was not suitable for growing crops and as an it was an island (not an atoll) it had no lagoon to fish in.

\textsuperscript{246} See; Robert C. Kiste (1974) \textit{The Bikinians: A Study in Forced Migration}. Cummings Publishing
The Kili bag was born from the conjunction of several factors, arguably most importantly the expulsion of Bikini islanders from their atoll, and the instigation of a United States government ‘development’ project, which advocated that the islander’s loss (of home, place, history, and economy) could be recuperated through the production of a tourist item. I found the Kili bag useful to consider in my research because, like the postcard, it appears to be an innocuous tourist object, which has not been fully theorised as an item of material culture. In using the Kili bag I wanted to think about what can be made perceptible by looking differently at this delicate white cuboid, enclosing a void, made to be given as a gift, by considering it as an object which “manifests both a celebration and a forgetting of the nuclear power that strategically and materially marginalizes and erases.”

As well as functioning as souvenirs and export items, a number of Kili bags have been given as official gifts. The then First Lady, Jackie Kennedy, is credited with popularising the bag in the early 1960s, after receiving one from the Marshall Island’s first president Amata Kabua, and in 2012 Queen Elizabeth II was given a Kili bag at the opening of the London Olympics as an official gift from the Marshall Islands. In 2013, Sally Jewell, then US Secretary of the interior (the department responsible for wildlife and programmes pertaining to indigenous peoples in the United States) was given a Kili bag when she attended the 44th Pacific Islands Forum, which that year was held in Majuro – the capital of the Marshall Islands. Kili bags can then be seen to circulate in a capacity which exceeds that of the tourist souvenir, and as official gifts from one country to another, they network political and historic relationships.

Between 1946 – 1996 the US, France, and Great Britain all tested nuclear weapons throughout Oceania with the US focussing their testing in the Marshall Islands. The Nuclear Testing events discussed in my PhD are some of the 67 weapons tests carried out by the United States Government in the Marshall Islands. These tests were conducted as part of the Cold War arms race, during which both sides experimented with nuclear weapons in order to determine the veracity of their effect and to produce information that was intended to be kept secret.

These tests visually displayed, on the world stage, the power of the devices and the government detonating. As such, these events were carried out in order to be recorded: to be photographed and filmed to the extent that their documentation used up half of the film stock available in the world at

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The experiments necessitated the compulsory mass relocation of entire communities, as it was “scientifically and politically critical to ‘empty out’ islands for nuclear experimentation by forcibly removing the population”. As the theorist Karen Barad writes, these evictions - presented as temporary dislocations undertaken through choice - enabled the US government to project an idea, and an image, of these islands as existing without inhabitants (without citizens). It also suggests that the islands themselves are of no importance, by conceiving of an ‘empty’ island as ‘a void’, a conceptual device which, as Barad argues, was and still is a “well-worn tool used in the service of colonialism, racism, capitalism, militarism, imperialism, nationalism, and scientism.”

US military considered the island of Elugelab (like the island of Kili) to be empty and thus appropriate for repurposing. As part of ‘Operation Ivy’, the thermonuclear device ‘Mike’ was detonated there on the 31st October 1952 and Elugelab was “blown out of existence” by the world’s first thermonuclear weapon. This explosive experiment created new data, and two new plutonium isotopes, that led to the discovery of the heavy elements’ einsteinium and fermium. Yielding such results, the Mike experiment was viewed by the US military as a success and although it took place 70 years ago, it remains a fertile source for research. For example, when I contacted Greg Spriggs - charged with digitising and analysing the original photographic images of nuclear tests produced by the military - at the Lawrence Livermore National Laboratory to locate photographs of Elugelab, he told me, “I’m sorry to say that I don’t have any photos of Elugelab prior to Mike. I wish I did. As it turns out, I need to know the dimensions and elevation of the island in order to prove something”.

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251 Elugelab was part of Enewetak Atoll in the Ralilik Chain of the Marshall Islands.
252 ‘Operation Ivy’ consisted of two atomic tests; Mike was a surface device detonated on Elugelab island on the 31st of October 1952 and King was an air dropped device detonated on the 15th of November 1952.
254 The detonation of Mike produced a mushroom cloud which reached 25 miles into the air and 100 miles across the sky, and a crater on the sea bed some 6200 ft wide.
255 Email correspondence on 18th October 2019 with Greg Spriggs, Film Scanning and Re-Analysis Project Team Leader, Lawrence Livermore National Laboratory, California, USA.
Fig. 60 Map of tests made in Enewetak Atoll. Creative Commons

Fig. 61 Map of Enewetak Atoll. Creative Commons
Here, the continuation of photography’s use of scale for military purposes is clear, as is the ongoing ability of the original or vintage photograph (which, in this case, is missing) to be used in an evidentiary capacity. In place of photographs of the now non-existent island of Elugelab, the Lawrence Livermore National Laboratory sent me photographs taken on Japtan, another island in Enewetak Atoll, that had functioned as an R&R (rest and recuperation) base. These photographs documented off-duty personnel. Some were taken by the military, as official documents, while others, like the colour photograph below, were apparently taken by servicemen and thus are unofficial records. This particular photograph shows other off-duty personnel observing a nuclear detonation called ‘King’.  

![Image of Off-duty service men watching the 'King' detonation from Japtan, Enewetak atoll.](1952)

Fig. 62

Off-duty service men watching the ‘King’ detonation from Japtan, Enewetak atoll. Image Courtesy of the Los Alamos National Laboratory National Security Research Centre. (1952)

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256 ‘King’ was the largest pure-fission nuclear bomb ever tested by the United States. It was detonated at Enewetak Atoll in the Marshall Islands on the 15th of November 1952.

Another ‘official’ photograph from the same time shows two off-duty personal weaving with leaves, a traditional craft in the Marshall Islands. The man watching them wears sunglasses and a radiation monitoring ID badge; it reads ‘Operation Castle’. This photograph then can be dated to 1954, and so at the same time as these servicemen were weaving for pleasure or as a distraction, the Bikinians were learning to weave Kili bags as a mean to subsist. These photographs led me to look again (and differently) at the other photographs in the Trust Treaty Collection, such as the image below of United Nations staff visiting the Marshall Islands in 1973 during the period of the ‘clean-up’ operations.

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257 ‘Operation Castle’ (March – April 1954) comprised seven tests, including one which was cancelled. Five took place at Bikini Atoll and one at Enewetak Atoll.
“Their Hawai’ian shirts surprised me – they seemed incongruous, and even in black and white, they appeared garish.”

Monologue from *Apparent Time*

They reminded me of the colour photograph of the ‘King’ detonation and Teaiwa’s concept of ‘militourism’ and provoked me to wonder; what role observation (mechanical) or the observer (human) plays in militourism; observers like the man with the camera in Duane Hanson’s life-sized sculpture *Tourists* (1970).
Tourists (1970) Duane Hanson
Polyester, resin and fibreglass, paint, garments and objects. 152.00 x 80.50 x 31.00 cm (man); 160.00 x 44.00 x 37.00 cm (woman). *Tourists* was acquired by the National Galleries of Scotland in 1979.

What spectacle might we imagine the male tourist in this scene is looking at? Clearly dressed for a warm climate, he shades his eyes from something. Is it the tropical sun, or the bright blast of an atomic explosion? Is the light solar or synthetic?

I began to collect aloha shirts, as they represented and expressed a tropical landscape, and at the same time, they figured a body, predominantly a male body. In my reimagining of the R&R island of Japtan I thought of the servicemen wearing shirts like these and I thought of them watching the radical unmaking of Elugelab and I began to undo the shirts, thread by thread; unmaking both the image and the form.
3.2 Photo 9

At an early stage of my PhD research, “I found myself captured by an image”, which I first saw while looking through the online collection of photographs taken between 1947 and 1994, the period when the United Nations granted the United States government administrative rights over Micronesia as part of the Trust Territory of the Pacific. These include photographs taken during and in the aftermath of the period of nuclear testing in the Marshall Islands.

![Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972](image)

Fig.68

‘Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972’ Black and white photograph

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258 Monologue from Apparent Time (2022).
259 Currently held by the University of Hawai'i.
260 During WW2 the Marshall Islands were a site of numerous battles between the Japanese and the US. Following the war, the United Nations recognised Micronesia as a strategic area and designated it as a Trust Territory to be administered by the United States. This area, which included the Marshall Islands, was spread over islands, atolls and seas and equated to the size of continental USA. The territory was mainly controlled by the US Navy until 1951 after which it was administrated by the United States Department of the Interior.
Unlike most of the photographs taken in relation to nuclear testing in the Marshall Islands, the subject of this image is not the catastrophic event of an atomic explosion, as caught on camera with high-speed film; images often described as constituting a vision of the nuclear or ‘atomic sublime’, of wonder and fear, a sight which the art historian and photographer Peter B. Hales claimed could be best summarised as the vision of a “mushroom cloud, rising above the lush tropical atolls of the South Pacific”.  

For Hales, it is images like the one above (fig. 69), of atomic mushroom clouds created by nuclear testing, rather than those of the actual atomic attacks on Nagasaki and Hiroshima that articulate the atomic sublime. Hales gives two reasons for this differentiation. Firstly, that the aesthetic of the sublime is intensified by the natural, unspoilt landscapes of the selected test sites in the Nevada desert and the Pacific islands, which act as backdrops to the explosions and codify them as ‘Wonders.

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261 A high-speed camera, which could shoot at the rate of 15,000,000 fps was developed to document the first detonation of a nuclear weapon, codenamed Trinity, by the US Army. The event took place in the Jornada del Muerto desert, New Mexico, on the of 16th July 1945 as part of the Manhattan Project.


263 Baker was one of two devices detonated as part of ‘Operation Crossroad’ the first testing of nuclear weapons since the second world war ended less than one year before.

264 With the consent of the UK government, necessitated by the Quebec Agreement, the United States detonated two atomic bombs over urban areas of Japan in 1945; the city of Hiroshima on the 6th of August and the city of Nagasaki on the 9th of August.
of the World’. Secondly, says Hales, while the dropping of nuclear bombs on Japan during World War II constituted “the end of a cultural era”, the testing of nuclear weapons directly after the end of World War II signalled “the dawn of a new one”. We might then think of this new era as being defined through the open militarisation of global peacetime: a condition which continues indefinitely into the future.

Dialogues around the ‘nuclear sublime’ often fail to incorporate an aspect particular to it: the void. I argue, therefore, that this somewhat unremarkable image (fig. 68) of three men in a boat ‘where Elugelab once stood’ most lucidly communicates another category of the nuclear sublime. It is not “the colossal radial symmetries of the detonation and its ghostly luminosities” whose fleeting presence we see documented in the ubiquitous photographs of nuclear testing. It is the permanence of the void of something not ‘being’ at all, something so completely undone that it is impossible to remake.

3.3 Thinking in Photographs

When attempting to articulate how and why Photo 9 held my attention the photograph becomes split in my thoughts. There is the image itself; an amateur and unremarkable photograph and there is its context; a photograph taken at the site where a thermonuclear device was detonated as part of an experiment, and its title; ‘Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972’. In attempting to discern what these combined aspects might mean two themes addressed in the work of the Philosopher Jacques Rancière come to the fore; the ‘pensive image’ and his question, ‘Are Some Things Unpresentable?’

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268 Rancière’s essay addresses what representation might mean at this point in history, how artworks can be employed in the politics of aesthetics and how questions concerning the ethics of the image affect its potential ability to represent.
For Rancière the pensive image, “the image of a suspension of activity” operates as an interruption to the reading of the work or spectacle and thus can be related to Barthes’ notion of the punctum. But unlike the punctum, which one could argue is knowable (consciously or unconsciously) to both the photographer and the viewer of the photograph, the ‘pensiveness’ of the image is only available in the photograph itself. It is the result of indeterminacy – something, which for the viewer of the image, rests on the cusp of banality and distress; “Pensiveness in fact arrives to thwart the logic of the action. On one the hand, it extends that action that had come to a halt. But on the other hand, it puts every conclusion in suspense.”

I suggest the power of capture elicited by ‘Photo 9’ is due to the ‘pensive’ quality of this particular image, manifest as a photograph. Precisely because the image exists as a photograph (rather than a painting or a drawing) we know that the three men (and the photographer) really were at sea and, due to the fidelity of the camera, we can discern that at the time of the photographs taking the boat has stopped and is paused in the middle of the ocean. This image (considered alone without its caption) evokes stories and parables of being lost or adrift at sea, and this “pensiveness of the image is then the latent presence of one regime of expression in another” the photograph being manifest in other images. This concept becomes further ramified when I employ the photograph in my film Apparent Time, where it is transposed from the regime of the archive to that of the artwork.

When viewed with the caption ‘Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972’ the question of what the photograph can be said to represent becomes paramount, as the text makes perceptible what cannot be seen, what cannot be represented. Furthermore, through the knowledge of the specific context of this photograph - its relationship to nuclear testing - it engages with Rancière’s question; ‘Are Some Things Unpresentable?’. A large number of photographs and films which were made of the nuclear tests during the cold war record the actuality and excess of the tests; their scale, power and abundance. However, these images do not represent what these tests mean. They do not account for the simultaneous world-making and un-doing that these events manifest.

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271 Ibid. pp.77-78
272 Ibid. p.78

See also Bellour who writes, “the photograph enjoys a privilege over all other effects that make the spectator of cinema, this hurried spectator: a pensive one as well” Raymond Bellour (1984) The Pensive Spectator in Photogéines, No. 5. Pub. Centre National de la Photographie. Trans. Lynne Kirby p.123
273 This transposition is, of course, only virtual as the photograph itself never actually leaves the site at which it is physically stored. It is important to note that this photograph and the other images used in Apparent Time are the results of digitally scanning original physical photographs.
As seen in the photograph of Auschwitz used by Farocki in his film, *Images of the World and the Inscription of War*, representation, understood as an “ordered deployment of meaning,” a making visible of ‘things’ or ‘events’, cannot adequately adjust our relationship to reality in order to render the unthinkable perceptible, but perhaps, as this project proposes, demonstrating representations *lack* in this regard can.

### 3.4 Solar time

In Horology ‘apparent time’ refers to measuring time by observing the shadows cast on a surface produced by the sun’s rays falling onto an object. For apparent time to be measured, the observer and the object must be fixed, while in observing mean time the observer and the object (the watch or clock) can be considered to be in motion. Mean time is sometimes referred to as ‘clock-time’ which, as the historian Giordano Nanni argues, was enforced on the world primarily through the “official deployment of GMT in 1884”, the procedure which first envisaged the planet as sliced into time zones, with Britain, the colonial power, at its centre. For Nanni, this deployment is the most effective global ‘protocol’ ever undertaken. This imposition of a standardised relationship with time, which neatly portions out life and measures duration according to ‘clock time’, affects everyone’s current experience of reality.

While my film *Mean Time* (2020) considered both the observer and the camera in motion, mobilised across time zones and other invisible ‘world-making’ lines, my film *Apparent Time* is primarily concerned with *un-doing* the notion of images and events as being fixed so that their meaning or relevance might be transposed. Whereas *Mean Time* uses an array of mass-produced photographic postcards and visual interdictions, *Apparent Time* uses a handful of singular photographs and woven items of material culture. *Mean Time* is replete with allusion to movements through acts of travel and scanning, whereas *Apparent Time* focuses attention towards static positions to enable telescopic views to be rendered.

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275 The most familiar object in this regard is the sundial. Sundials are one of the most ancient ways of telling the time during daylight hours. Though archaeological finds date the earliest purpose-made sundials to 1500 BCE (remains have been found in Egypt and prototype devices in Russia from the same period), since a simple sundial only requires a flat surface, an object capable of casting a shadow on that surface and sunlight, it can be assumed that this method of measuring time was used by many cultures and societies around the world.


277 Could it be argued that this deployment of ‘clock time’, the regimentation of actions, constituted a step toward the militarisation of civilian/everyday life?
3.5 Meanwhile

*Apparent Time* starts with the word ‘meanwhile’, and in doing so implies a synchronicity of events and occurrences being connected by a shared temporality rather than through a causal association. The experience of ‘meanwhile’ is enabled because of the common use of, and a value placed upon, modern means of measuring time such as clocks, watches, and the Gregorian calendar.  

In thinking of the ‘event’, as a singular occurrence, tied to a specific moment, the calendar emerges as a prominent cultural tool. As the sociologist Norbert Elias observed, “The calendar’s unrepeatable succession of numbered years symbolically represents the unrepeatable succession of social and natural events.” All of the numbers and names that are assigned to various measurements of times passing such as; 2 o’clock, the 10th, Wednesday, and July, are repeatable but years never are. The word ‘Meanwhile’ is also used in *Apparent Time* to provoke thinking in relation to what may be happening, at the same time, somewhere else, in parallel to this moment; it articulates the possibility of ‘meanwhile’ as a place; a somewhere that the viewer is not.

The timeline presented by the essay film is not bound, as the conventional documentary might be, by chronological ordering, but presents and connects ideas as they have been thought. In *Apparent Time* the subjects and events referred to in the film relate to specific times and dates (some by years others can be dated to exact days and minutes), but in the film these points in time are disjointed, and the flow of time is unsettled. Opening *Apparent Time* with this word is also done in reference to the ‘meanwhile’ which historian Benedict Anderson invokes in his analysis of the modern concept of a nation. For Anderson the conceptualisation of ‘meanwhile’, especially through printed text, enabled distant and disconnected sites and events to be viewed as essentially connected;

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278 Both the Julian and the Gregorian are ‘solar’ calendars, the dates of which are calculated by observing the position of the Sun in relation to the stars. The Julian Calendar was introduced in BCE 46. The Gregorian Calendar which dates from CE 1582 was modified in line with astronomical data and came into use in Great Britain in 1752. Source:https://www.oed.com/view/Entry/26301?redirectedFrom=Gregorian+calendar


281 Via Enrich Auerbach’s *Mimesis: The Representation of Reality in Western Literature* (1946) Anderson also considers meanwhile in historical and religious texts as the presentation of simultaneous events between God and humans, Heaven and Earth, the past and the present – “the here and now is no longer a mere link in a chain of earthly events, it is simultaneously something which has always been, and will be fulfilled in the future; and strictly in the eyes of God, it is something eternal, something omnitemporal. Something already consummated in the realm of fragmentary earthly event” p.64
enabling a community\textsuperscript{282} or nation to be conjured; in his terms, to be imagined. As Anderson states, in the 18\textsuperscript{th} century, it is the proliferation of, and access to, printed matter, particularly the novel and the newspaper, which “provides the technical means for ‘re-presenting’ the kind of imagined community that is the nation”,\textsuperscript{283} in which a person may only ever meet a fraction of the individuals in ‘their nation’ yet their shared reading of events (fictional or actual) functions to bind them.

As Scott McQuire asserts, while the camera enabled the visualisation of imagined communities by documenting and reproducing them, and thus can be said to have been used to enforce the concept of the nation, it is film which takes up and employs the concept of ‘meanwhile’ which Anderson identified in the structure of the modern novel. In his argument McQuire transposes Anderson’s analysis of imagined communities and his employment of ‘meanwhile’ from literature and the printed text to cinema, in which, as McQuire stresses, Anderson’s concept of ‘meanwhile’ is achieved by way of parallel montage manifest through “film’s unique capacity to join the representation of space to the experience of time…”\textsuperscript{284}

3.6 Referent and void

I first saw the photographs that I used in \textit{Apparent Time} while I was “…looking for a photograph of a Kili bag, a referent for an item which I had recently been given a newly made version of”,\textsuperscript{285} a visual document that would lend veracity to the object which I now had.\textsuperscript{286}

Although we know the factual basis of the photograph, the combination of the image and its title, \textit{Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972} evokes well-known myths, such as Atlantis,\textsuperscript{287} the island which sank into the Atlantic Ocean, and stories that describe occurrences which might now perhaps be explained away by science or reason, especially events that relate to ideas of origins and endings.

\textsuperscript{282} Unlike the concept of a nation, a community implies that the members have met or are in contact with each in some way.
\textsuperscript{283} Benedict Anderson (1983) \textit{Reflections on the Origin and Spread of Nationalism Imagined Communities}. Verso p.25
\textsuperscript{285} From the monologue for \textit{Apparent Time} (2022).
\textsuperscript{286} This process of looking for one thing and finding something else, storing it, then later activating it in an artwork is common to my practice and can be said to constitute a working methodology.
\textsuperscript{287} See Plato’s \textit{Timaeus} (360 BCE).
The world, and thus also the men on the boat, know that the island is not there
but still they go to ‘the spot where Elugelab once stood’ like a pilgrimage or a
tour of ancient ruins. Do they go in order to see for themselves, with their own
eyes, to experience what Virilio calls ‘ocular reality’,\textsuperscript{288} or do they go specifically
to take this photograph? Perhaps it is both.

Monologue from \textit{Apparent Time}

Other photographs of the same locale, taken a minute, day, month, or year before (or after) this
photograph would essentially be the same. Therefore, it is not the uniqueness of the single
photograph but rather the ubiquitous nature of photography that is of interest here. Looking at this
image I perceive a sense of incomprehension produced, not by the explosive event which had
occurred 20 years earlier, but by the idea that an island, and therefore part of the world, was
purposely destroyed as a field experiment. For the philosopher of science Karl Popper, scientific
theories are provisional and essentially exist as myths until they are proven.\textsuperscript{289} We might then think of
the Pacific ‘proving grounds’, the name given to the test sites in the Pacific Ocean including the
Marshall Islands, as places where myths (of physics, at least) became realities.

‘Photo 9’ seems to indicate a form of perception that exceeds what both the figures in the
photograph - and the viewer of the photograph - can see; something omnitemporal, something for all
time. I propose that this is an image in which, to quote Walter Benjamin, “what has been comes
together in a flash with the now to form a constellation”\textsuperscript{,290} a thought image. Considering this specific
photograph in this way can elucidate what the man to the right of the image is seeing. Given the
photograph’s title, we might infer that he is looking at the \textit{inscription} left by the crater below the
surface of the water; or this section of water that he gazes at may be the same as the water to his
left, to his right and behind him. Whatever he is looking at, it is not what he ‘sees’, when he looks at
that very spot that is communicated through this image but what he ‘perceives, what Rancière
describes as that which “cannot be brought before our eyes; nor can a representative commensurate
with it be found”\textsuperscript{.291}

\textsuperscript{289} Popper said that “science must begin with myths, and with the criticism of myths; neither with the collection
of observations, nor with the invention of experiments, but with the critical discussion of myths, and of magical
\textsuperscript{290} “In other words, image is dialectics at a standstill” (Walter Benjamin, \textit{Arcades Project}, trans. Howard Eiland
3.7 Technology

In *Art, Time and Technology*, a book about the potential of art to simultaneously question and work with evolving technologies, the historian of art and media theory Charlie Gere frames his argument in relation to what he describes as Walter Benjamin’s “attempts to come to terms with the relationship between artistic and technological developments”. Gere considers Benjamin’s idea of how analogue or mechanical forms of reproductive technologies employed in art and culture, especially photography and film, affect our perceptions and experiences of time. Gere interprets Benjamin’s position as correlated to the idea that “war is the inevitable result of a society and culture failing to respond to the developing possibilities of technology”. Gere suggests that, for Benjamin, the issue is not necessarily with the technology itself but with its deployment. Following this line of thought advances in science and technology only become problematic when they are perceived culturally, and historically, as being misused.

In support of his argument, Gere points to earlier theories that describe this capacity of science to accelerate faster than culture and proposes that these differences in velocity and evolution create fissures in culture. Furthermore, Gere posits that the space produced by this failure, this lacuna between technological progress and social evolution, is where “the avant-garde … emerged” and that, since then, a major concern for artists has been how they can reconcile technology as both medium and subject.

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293 Ibid p. 49. Benjamin’s point was echoed by the theorist and filmmaker Guy Debord when he wrote that “The fact that the practical power of modern society detached itself and built an independent empire in the spectacle can be explained only by the fact that this practical power continued to lack cohesion and remained in contradiction with itself”. Guy Debord (1967) *The Society of the Spectacle*. (1983) Rebel Press. p.24
294 We might consider this in relation to the idea that it is acceptable for some countries to have weapons of mass destruction or that nuclear weapons are still produced as deterrents for nuclear war.
295 In his footnotes Gere cites the 19th century French philosopher and mathematician Antoine Augustin Cournot, who proposed that science developing faster than culture “would mean the end of history”. Gere also mentions the American sociologist William F. Ogburn’s concept of ‘cultural lag’, whereby material culture develops faster than non-material culture. Ibid p.32
296 Ibid p.50
3.8 Images of the World

In his work on the entanglement of perception with war and technology, the theorist Paul Virilio describes how, following the First World War, the United States set about readying itself for engagement with war-craft in the Pacific by “sending in film-makers who were supposed to look as though they were on a location finding mission, taking aerial views for future film productions”\textsuperscript{297}. In fact, these were reconnaissance planes, which in the post-war peacetime swapped guns for cameras in order to document the sites already being considered for militaristic purposes. McQuire, echoing Virilio, asserts that from the early to mid-20\textsuperscript{th} century, mainstream cinema, and Hollywood in particular, displayed a “notorious lack of interest in other countries and cultures as anything more than background locations”\textsuperscript{298}. In film production (especially in the UK) location finding is often referred to as a ‘recce’, a shortening of the word reconnaissance and an adoption of military language by creative industries.

The German filmmaker Harun Farocki’s film essay, \textit{Images of the World and the Inscription of War} (1988/89)\textsuperscript{299} interrogates what the film historian Thomas Elsaesser has described as moments of “historical conjuncture”\textsuperscript{300} and explicitly relates them to the location, function and photographic documentation of the Nazi concentration camp Auschwitz\textsuperscript{301}. Using found photographs, books, documentary, televisual and commercial footage\textsuperscript{302} \textit{Images of the World and the Inscription of War} does not focus on that which is unseen, what has escaped the capture of the camera, but rather the film draws attention to what is apparently imperceptible – that which has literally been overlooked. The film’s title acts as a prompt to help us read the work. As Farocki has said, in German, the word ‘inscription’ relates expressly to a word incised onto stone, and thus connotes a kind of permanent form of writing. In relation to the photographs that Farocki uses in the film, his interest is primarily in their seemingly innocuous nature and latent possibilities; “you cannot tell by looking at the images of the world that war has been inscribed on them; war has been inscribed cryptographically. On one hand, indelible and, on the other hand, invisible”\textsuperscript{303}

\textsuperscript{298} Scott McQuire, (2007) \textit{Visions of Modernity: Representation, Memory, Time and Space in the Age of the Camera} Sage. p. 206
\textsuperscript{299} 16mm colour film with audio. Duration 75 min.
\textsuperscript{301} Located near the Polish village Brzezinka and also sometimes referred to as Auschwitz-Birkenau, Auschwitz was the largest of the Nazi concentration camps.
\textsuperscript{302} This included clips of television programmes that Farocki himself had filmed in order to finance his own work.
\textsuperscript{303} Christa Blümlinger & Harun Farocki (2017) \textit{The ABCs of the Essay Film} (2014) in Essays on the Essay Film Ed. Alter & Corrigan Columbia Press. p.303
Images of the World and the Inscription of War concentrates on a specific photograph, which was taken during WWII by an allied reconnaissance mission searching occupied Poland for the location of the IG Farben factory, a potential target for Allied bombers, as the company was known to produce synthetic oil and rubber used in the Nazi war effort. At the time IG Farben “was the largest corporation in Europe and, after General Motors, United States Steel, and Standard Oil, ...the fourth largest in the world.”

Although most commentary on Images of the World and the Inscription of War has centred on its exploration of vision, I suggest that Farocki’s film also, perhaps unconsciously, focuses the viewers’ attention on the concept of lapses: literally, figuratively, and in time. The word ‘lapse’ stems from the Latin lapi or lapsus, meaning to slip or to fall: but it is now commonly used in relation to errors (a lapse in judgement), or in relation to temporality (a lapse in time). In Images of the World and the Inscription of War, the viewer is made aware of several conspicuous lapses. There is Alfred Meydenbauer’s slip from a cathedral tower in 1858 (which led to the first major scale measurement based on photographs) there is also the lapse of cognition by the Allied intelligence, who were unable to see or to recognise the site of the Auschwitz camp. And the lapse or interval, in time, between this photograph being taken in 1944, as an aerial image of the site of the IG Farben factory and as it is viewed in 1977, as an image that documents the site of a Nazi concentration camp. These lapses connect to notions of failure and how we might relate failure to vision, for instance, by describing a failure of duty as oversights or of things and events as being ‘overlooked’. The lapses that Farocki signals in Images of the World and the Inscription of War thus emphasise the responsibility inherent in the act of looking, specifically in looking at a photograph.

Farocki’s film also points to the ramifications that arise from using the photograph as a reliable witness or an interpretative tool. As Virilio observed, the information gleaned from the images

304 IG Farben stands for Interessengemeinschaft Farbenindustrie. It was formed in Germany in 1925 from the merger of six chemical companies; BASF, Bayer, Hoechst, Agfa, Chemische Fabrik Griesheim-Elektron, and Chemische Fabrik vorm.
305 As noted by Tom Keenan, one of IG Farben’s subsidiary companies was responsible for producing Zyklon B, the poisonous gas used to kill prisoners in the gas chambers.
307 Nora Alter notes that this photograph, although presented in Images of the World and the Inscription of War as unique or singular, was not. In fact, several similar photographs taken over the course of almost a year replicated this view and its visual information. “Allied photorecon aircraft made it to these targets less than two dozen times between 4 April 1944 and 14 January 1945 [and] half of those missions also coincidentally got coverage of the death camps - a few frames in each of eighteen rolls of film”. Roy Stanley, (1981) World War II Photo Intelligence Charles Scribner’s Sons (FN 31 in Nora Alter (1996) The Political Im/perceptible in the Essay Film: Farocki’s “Images of the World and the Inscription of War” in New German Critique, Spring - Summer, 1996, No. 68, pp. 165-192. Duke University Press.
produced by aerial reconnaissance photography was based on a “rationalized act of interpretation” on identifying places and buildings as being what the viewer could reasonably expect and believe them to be. The initial viewers of the photograph used in Farocki’s film looked for things that they knew existed as opposed to things which they could not imagine as being real.

3.9 Light

In the essay *Light Weapons*, the media theorist Tom Keenan identifies light as a major theme in *Images of the World and the Inscription of War*, particularly the attention that Farocki pays to the use of spotlights at Auschwitz (which were pointed down at prisoners from watchtowers by one guard while another aimed a rifle) as well as acknowledging the basic, yet vital relationship of light to photography and its conceptual associations to the Enlightenment. Virilio also draws attention to the relationship between artificial light and elements of Warcraft, discussing, for example, how, as early as 1914, “anti-aircraft artillery was already combining guns with searchlights” so that the light took the place of vision in the sighting component of the gun.

There is also the infamous use of Luftwaffe ‘searchlights’ by Hitler’s inspector general of architecture, Albert Speer, who created columns of light by using parabolic mirrors to intensify the beams produced by pointing over 150 searchlights vertically up into the sky for the Nazi party rallies that took place in Nuremburg from 1934-1938, a spectacle often referred to as the ‘Cathedral of Light’.

Fig. 70a, 70b, 70c
‘Cathedral of Light’ at the Zeppelin Field during the last Nazi Party Rally, 1938.
Photo credit: Nuremberg Municipal Archives

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311 Originally designed as a temporary feature at the grounds of The Zeppelinfeld whilst the stadium designed by Speers was being built, the use of the lights continued until 1938.
Light here is used as a substitute for stone, but this does not mean that it is inferior. Although stone and marble denote permanence, they decay and can be destroyed, and so what Speers’ ‘Cathedral of Light’ communicates is that *this* light, and by extension those who weld it, are eternal. Light in this context is modernised and highly controlled. Its aim is not to *illuminate* an object or a scene but to create one. The result is a modernist sculpture, a cube made of beams of light that acts as both a wall between the party members and the rest of the world and as a futuristic prison.

The photographs of Speers’ ‘Cathedral of Light’ make clear the intended allusions to ancient Greek and Roman temples, although here we don’t have to imagine the people, the followers in the processions. Like the light communicating an idea of power stretching across time, the participants in this pageantry are documented, and their number is vast.

Keenan’s claim, that “*Images of the World* is a film of light and disaster, of exposure and its time, ...its speed”\(^{312}\) is useful to consider as it stresses an equivalence between the exposing of film and the exposing of truth. It also emphasises speed (a component of time) as a determining factor in regard to the efficacy of exposure. Yet in this argument, Keenan neglects to include how exposure and speed are both related to concepts of measurement and, particularly in Farocki’s film, the constituting roles of scale and proximity. I would argue that much of *Images of the World and the Inscription of War* is concerned with concepts of scale (such as the wave machine and the architectural models of streets and buildings) and proximity. These are most notably related to the size of the structure and the number of prisoners at Auschwitz, and – as is revealed in the re-reading of the photograph in 1977 – its proximity to a target (the I.G Farben factory), to something which was consciously recognised, observed and documented.

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Stills from *Images of the World and the Inscription of War* (1988/89) Harun Farocki
This use and attention to light that Keenan and Farocki consider here is different from Benjamin’s concept of the co-joined moment of the flash and the image in which they “substitute for each other... and are deployed by turn to articulate a specific epistemology”\textsuperscript{313}, a form of illumination. This light is not over in an instant - a flash – instead, it endures; it is a light that is consuming.

Shock or revelation is also manifest differently for Farocki than it is for Benjamin. For Benjamin, knowledge is revealed in a flash, and shock is elicited by the speed of this revelation, a speed indicative of modernity. For Farocki, however, knowledge unfolds through the terrible horror of slow realisation - for him, latency is a real-world operation whose effect is devastating. While Benjamin emphasises the moment of realisation the epiphany as an exposure, a lit-up moment, Farocki’s film stresses the expanse of time passing and of not knowing – of being in the dark.

3.10 Apparent Time

My film \textit{Mean Time} predominantly looked to the past through historical moments and images that embroil the camera and the photograph with events that pre-date their existence, whilst \textit{Apparent Time} seeks to enmesh the present with the recent (or just) past. Whereas \textit{Mean Time} uses images of recognisable sites (the Acropolis in Athens and the National Monument in Edinburgh) which speak to tourism and historical periods in a predominately European context, \textit{Apparent Time} works with visual documents whose association with specific events and histories is not readily available. \textit{Apparent Time} does not present the photographic documents in a manner determined by any external order or succession, for instance by the dates when they were made or that I found them, instead their sequence is the structural result of the progression of thought through the film as an essay.

\textit{Apparent Time} ends with a close-up of the un-doing of a piece of printed fabric: a thread being pulled from the material, drawn across the image from left to right. This movement - the dislocation of a single thread - is an attempt to attract the viewer’s eye and their attention across the screen and perhaps out of the frame.

The pulling of the thread and the footage of the laser tattoo removal\textsuperscript{314} are the only instances in the work which were filmed; recorded as a ‘moving image’. These scenes act as interruptions or interludes in the structure of the film. The filming of these sections as moving images was necessitated both by the fact that what is being recorded is in motion, and in order to convey that what is happening is situated temporally in the present. These scenes are essential to the framework of the film. They elicit a mimetic bodily response from the viewer, emphasising the eye and its ability to move (over the static lens) and the un-doing of the surface, as a breach of a threshold.

The image of the thread being pulled is at odds with what comes before it; a flow of still images (photographs, a telephoto, a postcard, and slides), and thus, this brief piece of footage acts as a suture in the montage of the film, retroactively creating a dialogue between sources, between the figures and identifiable objects fixed in the photograph and the abstracted image of the (unstable) fabric. In this way, it stimulates thinking between the imaginary and the real, and between notions of the surface and the body. This is intended to enable an exploration of the perceived surface of an image, a screen, or a material as well as its actual depth. The sensation evoked by one image (such as the pulling of a thread) becomes mapped onto the reading of the preceding images. In this way, in \textit{Apparent Time}, visual connections are forced between the still photograph and the moving footage; for example, between the static photograph of United Nations staff wearing Hawai’ian shirts and the footage of a similar shirt (it’s material referent) being undone.

\textsuperscript{314} My documentation of a part of my own tattoo being ‘undone’ with a laser.
I have kept returning to and researching (looking again) at ‘Photo 9’ not because it tells me something about the place or historical events which occurred there, but because the existence of this photograph enables a way of thinking about how I (we) see and experience the world through images and the role that they play in our understanding. This image of the men in a boat is static, fixed in and by the photograph, but this scene also possesses the potential for motion and narrative. Although - having reached its destination - the boat has stopped, the ocean’s tides will continue to make the small vessel move, however slightly. The image records a point in time, the moment of the photograph being taken; it also captures another moment, a moment of realisation of, as the title of the photograph states, being “on the spot where Elugelab once stood”.

### 3.11 Seeing the camera at sea

In her book *An Oceanic Feeling: Cinema and the Sea* (2018), the writer and film theorist Erika Balsom discusses how the ocean has historically been tied to filmmaking, citing Auguste and Louis Lumière’s silent film, *A boat Leaving the Harbour* (1895) in which, captured in a single (50 sec) take, three men are shown in a rowing boat, heading out across the water towards the horizon (Fig.75). Unlike the photograph of the three men used in *Apparent Time* the scene in Lumière’s film seems optimistic, as though both the voyage which they are taking and this new medium of film on which it is being recorded, are moving towards the future, towards something hopeful, towards the horizon and its imaginary line.
3.12 Watching time

In ‘Photo 9’ (Fig.69) the man on the right is wearing a watch and its ‘face’ is turned directly towards the camera’s lens. According to the theorist of film and culture Mary Anne Doane, in Europe, at the end of the 19th century “Modernity was characterized by the impulse to wear time”.\(^{315}\) Although many people might not now ‘wear time’, in the form of a pocket or wristwatch, the ubiquity of mobile phones means that we almost all carry time around with us and still accept time as something which can be “ossified in machine form”\(^{316}\). In ‘Photo 9 - Boat on spot where Elugelab once stood, now a crater, 1972’, an image with perhaps little to look at, I found my gaze returning to this small object; the man’s watch. It appeared to me as Barthes’ notion of the punctum and I wondered, is the man wearing the watch looking into the sea which is, by virtue of the tides; itself involved in the measurement of time, or is he staring into the void, a space without time?

\(^{315}\) Mary Anne Doane (2003) The Emergence of Cinematic Time: Modernity, Contingency, the Archive. Harvard University Press p.4

A counterpoint to both the photograph of three men in a boat on the spot where Elugelab once existed and *A Boat Leaving the Harbour* is a photograph taken as part of *In Search of the Miraculous* (1975)\(^{317}\) the final work of the conceptual artist Bas Jan Ader in which he attempted to cross the Atlantic Ocean alone in a small sailboat.

![Image of a sailboat](image)

**Fig.75. In Search of the Miraculous (1975) Bas Jan Ader**

As is well known, Ader never completed his transatlantic voyage from Cape Cod on the East Coast of the United States to Falmouth, England. Radio contact with Ader was lost three weeks into his crossing, and some eight months later, his boat, named *Ocean Wave*, was discovered partially submerged off the coast of Ireland. Bas Jan Ader’s body has never been found.

*In Search of the Miraculous* can also be considered in relation to an act of pilgrimage, a journey undertaken as an equally physical and mental exercise based on a longing to be somewhere, to reach a place where fulfilment or understanding is possible. As with much of Ader’s work, *In Search of the Miraculous* is also about departure: about leaving, about the experience of loss\(^{318}\), and about how loss and departure are registered through physical processes of transition: processes sometimes captured on film.

\(^{317}\) *In Search of the Miraculous* was to be realised in three parts. The journey across the Atlantic from the US to England was part two – part two was never realised.

\(^{318}\) Much of Bas Jan Ader’s work was concerned with loss and it is noted in several texts that he experienced severe loss at an early age. Born in Groningen in 1942, Ader’s father, a minister who had helped Dutch Jews during WWII, was executed by the Nazis in 1944.
3.13 Islands

Islands seem to hold a particular place in the (male) historical imagination of Western culture.\(^{319}\) Whether in close proximity to, or far away from, a neighbouring landmass a frequently cited defining feature of an island is that it is viewed as being isolated.\(^{320}\) The figure of the island seems to suggest an allegorical space for thinking about, or through, parallel events and translations of meaning between the individual or local and the rest of the world but, as Elizabeth M. DeLoughrey has argued, the master narrative of the island-as-the-world\(^{321}\) is a problematic concept which fosters the idea of the island as a place where a version of the world, or reality, can be tested.

In the essay *Desert Islands*, the philosopher Gilles Deleuze discusses how geographers consider there to be two types of islands. There are “Continental islands... separated from a continent, born of disarticulation, erosion, fracture; they survive the absorption of what once contained them” and ‘oceanic islands’ viewed as “originary, essential islands”.\(^{322}\) Oceanic islands and atolls have no mainland which serves as their parent. A result of underwater volcanic eruptions, these islands, and islets exploded from the world, making visible and physically present something which, until that moment, had been unseen and untouched – that which had been below the surface. Deleuze describes islands, particularly deserted oceanic islands as possessing an elan,\(^{323}\) a magnetic-like pull that draws people towards them.\(^{324}\) This can be observed in works of cinema and literature in which the oceanic island is presented as the place where we end up after a shipwreck (*Robinson Crusoe*) or aeroplane crash (*Lord of the Flies*), while in real life, they are places where foreign powers battle over access to passageways and resources.

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\(^{320}\) For an expanded discussion of how Pacific islanders’ views islands and the sea as constitutively connected see the Tongan and Fijian writer and anthropologist Epeli Hau’ofa’s essay, *Our Sea of Islands* in *The Contemporary Pacific* Vol. 6, No. 1 (Spring 1994), pp. 148-161. He writes that “There is a world of difference between viewing the Pacific as “islands in a far sea” and as “a sea of Islands”. P. 152


\(^{323}\) Ibid.

\(^{324}\) Also see J.G. Ballard’s short story *Terminal Beach* (1964) in which a pilot, following the death of his wife and son in a car accident, returns to Enewetak atoll where he begins to hallucinate (to lose his mind) as his physical health fall into decline.
Even when they are located in the same ocean, an atoll and an island are not interchangeable. An atoll is an entity comprising islands that encircles a body of water, a lagoon. When the Bikinians were taken from their atoll and relocated to the uninhabited island of Kili in 1948, they were subject to a process of inversion; their land, which existed on multiple sites surrounding a lagoon that had provided safety and sustenance was substituted for a small, single island. This relocating process seems correlate to Deleuze’s idea of the desert island in that it is not a place of “creation but re-creation, not the beginning but a re-beginning ... The deserted island is the origin, but a second origin. From it, everything begins anew. The island is the necessary minimum for this re-beginning”.

3.14 Luminosities

In reference to the thermonuclear device Mike, the detonation of which blew Elugelab out of existence, the monologue in Apparent Time discusses relationships between light and the photograph and between physical destruction and visual creation.

Thermonuclear fusion also occurs within the sun’s core, and so the same process which made Elugelab disappear also made this photograph possible.

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325 An atoll is not to be confused with an archipelago in which islands are present in the form of a chain or a cluster.
326 Bikini Atoll consists of 23 islands that encircle 15-mile-wide oval lagoon. The landmass of Kili is 200 acres, or 0.36 square miles.
328 Monologue from Apparent Time (2022)
In *War and Cinema*, Virilio also discusses these associations between light and image, destruction and creation, but he draws different connections between them. In depicting the bombing of Hiroshima in 1945, he writes of how the “nuclear flash which lasted one-fifteenth of a second…penetrates every building down to the cellars”\(^{329}\). This extreme exposure created images of figures onto the once bare stone walls, and the atomic flash fixed the printed textiles of their clothing onto the bodies of the dead Japanese. As Virilio explains, their “Kimono patterns were tattooed on the victims’ flesh”\(^{330}\). Although never discussed directly in the film, the ability of technologies to penetrate the surface of the body is implicit in *Apparent Time*\(^{331}\).

The shirt being undone in *Apparent Time* is a typical ‘aloha’ or ‘Hawai’ian’ shirt. It is not first generation type (made from silk kimonos), nor is it a cheap polyester version made in China; it is made in the US from cotton, and probably manufactured at the height of the boom in Hawai’ian shirt fashion in the 1940s and 1950s. One of the most well-known makers of Hawai’ian shirts is the Malihini Sportswear Company Inc., founded by the Sasaki family (originally from Japan) in Honolulu, in 1946. The company grew exponentially following WWII and it was their “connection to the US armed forces that directly increased Malihini’s sales” as this enabled them to place their shirts for sale “in military outposts across US colonial possessions in the Cold War Pacific”\(^{332}\). As Christian Tsuyuko Sasaki states, although “prior to 1947 the garments were not encouraged in the business setting... by 1948 and into the years of the Cold War, aloha wear took on a primary role in the government”, as the wearing of aloha shirts was encouraged by both the military and by American businesses in Hawai’i, a move “designed to push the multiracial touristic fantasy that signified Hawai’i as possible fiftieth state”.\(^{333}\) In this way we can see how the aloha shirt functions an item of material culture operating in the service of Teaiwa’s concept of ‘militourism’, “the phenomenon by which military or paramilitary force ensures the smooth running of the tourist industry, and that same tourist industry masks the military force behind it.”\(^{334}\)

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\(^{330}\) Ibid

\(^{331}\) When I showed *Apparent Time* to my friend the filmmaker Alex Hetherington, he wrote to me in an email that he read “the laser erasing image as a stand-in for the tremendous horror of the exposed skin”. Of importance here is the fact that it is my body (the body of the artist/author) which is undergoing a process of erasure.


\(^{333}\) Ibid. p.659

3.15 Sounds

Although *Apparent Time* starts with a word, with ‘meanwhile’. Before this point of commencement (of what we might think of as the start of the essay), there is an image, and there are sounds: employed to modulate the experience of time passing as the images on screen remain still. These include sounds ‘lifted’ from other sources including, applause, military aircraft, and music, sometimes presented as a riff (an improvised response), and at other points as a collection of single drawn-out notes. Music itself speaks of concurrent acts. As the theorist Jacques Attali writes, as it is played, music is “simultaneously heard, reasoned, and constructed”.

The first image in the film is simplistic; a found shadow and the object issuing this shadow that approximates both a sundial and the hands of a clock. This image, a black and white photograph, refers in a basic, and overdetermined manner to both mean time; the synthetic clock time imposed by the virtual lines of the prime meridian and time zones, and apparent time: the passing of time as measured by the natural phenomena of the sun’s rays reaching an object, a material thing, which then casts a shadow on a surface.

![Apparent Time](image)

Fig.77 Still from *Apparent Time* (2022)

Accompanying this photograph is the conclusion of a slow bass line, then (with a black/blank screen) a response in the form of sardonic fake applause. These signifiers of closure are followed by an image

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of two photographic postcards placed side by side so that they share a horizon line. The tank (with its gun/erect phallus) comes ashore on one tropical beach whilst a bikini-clad woman (‘The Sun Goddess’) reclines on another, with closed eyes she appears to submit to the sun’s rays. We hear the word ‘meanwhile’ as this diptych is drained of its colour, a visual modification that suggests a movement backward in time.

![Image](image_url)

Fig. 78
Still from *Apparent Time* (2022)

The drumming used in *Apparent Time* is a sample of Kenny Clarke, the African American musician who helped to pioneer what would become ‘be-bop’. Prior to Clarke, jazz drummers predominately kept time with soft taps on the bass drum (whilst improvising beats on the cymbal, snare or high-hat). The notion of keeping time is different from measuring or recording it. As the filmmaker and theorist, Trinh T. Minh-ha states, “Time and space are not something entirely exterior to oneself, something that one has, keeps, saves, wastes, or loses”. Keeping time (as opposed to ‘time keeping’) seems to connote the use of the body as the primary time registering device rather than any external force or object.

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336 According to the musician and ethnomusicologist Anthony Brown, “Neither ‘bop’ (an onomatopoeic scat syllable) nor ‘jazz’ were terms that African American musicians originated to identify their music.” Anthony Brown (1990) *Modern Jazz Drumset Artistry in The Black Perspective in Music*, Vol. 18, p.57

As the musician and ethnomusicologist Anthony Brown has observed that Clarke’s irregular accented drumming “freed the snare and bass drums from their predominantly timekeeping role, a function inherited from military musical conventions” and in place of the one-two beat reminiscent of a march, drumming became erratic and unpredictable. The sample of Clarke’s drumming used in Apparent Time is what he is perhaps most well-known for; playing syncopated beats to create a polyrhythmic sound known as ‘dropping the bomb’.

The sound of typing occurs intermittently throughout Apparent Time, sometimes unaccompanied, in other places intersecting with Clarke’s drumming or the sounds of the aeroplane. Where the typing sounds overlap with speech, it renders the words as tentative enunciations: attempts to verbalise thoughts. In other parts, the typing seems to suggest a sort of report writing, the translating into language of an account of some ‘thing’ or some ‘event’. In this way, typing: achieved by the machine and the body working together to translate thoughts and images into words, relates both to ethnography and (in the particular context of an artwork made as doctoral research) to the thesis. Where the typing sound is overlaid with Clarke’s drumming, the tip, tip, tapping on the keys of the typewriter occasionally synchronises with the drums and becomes a small (minute) reminder of the body as timekeeper.

### 3.16 Material Culture in Motion

My research has considered seemingly minor or innocuous objects and images, such as postcards, that I suggest are entangled with processes of militourism manifest through events and images as a “cultural force ...that works so loosely it sometimes becomes lost in or absorbed into other cultural forms.” In describing the various practices which constitute militourism, Teaiwa stresses that these practices are able to function precisely because they are not recognisable as such. A key

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338 Seen as “an original conceptual approach to drumset artistry, which eventually liberated the drummer from having to keep time for the ensemble” Anthony Brown (1990) Modern Jazz Drumset Artistry in The Black Perspective in Music, Vol. 18, p.41

339 Sound can be used to measure space as well as time.

340 Ibid. p. 42

341 Though I have been unable to ascertain the exact origins of the term ‘dropping the bomb’ as Dick Hebdige notes, it was used in “jazz argot” to describe this style of drumming since the late 1940s. See Dick Hebdige (1979) Subculture; The meaning of Style Taylor & Francis (2002)


example she discusses is ‘bikini’, which is both a bathing suit and an atoll radiated by nuclear military testing. Although the objects and images produced through militourism are often culturally visible, such as the bikini bathing suit, they are critically overlooked and, as Teaiwa contends, thus continue to conceal their connections to military events.

As discussed in Chapter One, postcards have historically been connected to militarism from the start. Real Photographic Postcards (RPPC) such as the one below (fig. 79) from WWI enabled a form of propaganda by documenting victorious scenes that were sent to fellow citizens as visual confirmation that their side was winning.

![Fig. 79](image)

Still from Mean Time (2020)

RPPC’s depicting events and sites of military activity were also made and sent in peace-time as Susan Sontag notes at the end of her book, On Photography. In a section titled, A Brief Anthology of Quotations, she includes a quote describing a visit to Auschwitz in 1974, “…At the souvenir stands, visitors can buy a selection of Auschwitz lapel pins in Polish or German, or picture postcards showing gas chambers and crematoria…”

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As a form of material culture, postcards index connections between technology, colonialism, and military expansion. Real photographic postcards relate to dialogues concerning how specific objects and images function to promote ideas of Otherness in the Western imagination. As the art historian John O’Brian has argued, “Postcards have been entwined with the nuclear since the beginning” of the post-war test period. Since postcards also function to express time and distance and, in relation to the historic events that I have researched, and which occurred far away from me, they enable a novel form of access to times and places.

Fig. 80

*Hoover Dam, Nevada* (1955) B/W photograph 16 x 20 inches. Robert Frank

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The practice of using photographs of nuclear tests as tourist postcards was common (particularly in America) in the years following WWII is demonstrated in Robert Frank’s photograph, *Hoover Dam, Nevada*. The black and white photograph presents as its subject a rack of tourist photographic postcards (which we can assume from the date 1955, are in colour). Frank’s photograph includes three other photographs depicting three landscapes; the engineering marvel of Hoover Dam features as the central postcard image, above it the natural wonder of the Grand Canyon, and below it, almost discretely, a postcard of an atomic explosion at the Nevada Test site. The production of photographs of atomic tests and their subsequent adoption as tourist postcards is another form of material culture in motion; objects made to be exported, to travel – like nuclear isotopes - potentially around the entire world.

Whilst the photograph, as postcard, renders engagement with the medium of photography as a communal practice, the travel photograph, as a document of one person’s embodied experience of being somewhere else, renders engagement with the world as a shared experience. The travel photograph (whether professional or amateur) opposes Barthes’ notion of ‘second sight’ which he says does “not consist in ‘seeing’ but in being there.” Following Barthes, the art historian W.T.J Mitchell extends and also subverts this point to say that although made in our presence, in a moment in which we experience ‘being there’ the photograph that we take is always the mechanical recording of that which we do not see. Therefore, the event of photography is connected to a fundamental division of being and seeing. This notion echoes the opening sentence in the foreword to *Operation Crossroads: The Official Pictorial Report* (1946) by Vice Admiral W.H.P. Blandy (who led Operation Crossroads) in which he writes that even though 42,000 people were present in the Marshall Islands at the time, “No man really saw what happened at Bikini.” The photographed event then is connected to a fundamental division of being and seeing.

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3.17 Conclusion

Photographs speak to a twofold experience of loss. There is its capture of a moment, person, object, time, or place which has now passed, and there is the particular type of loss that the photograph as an object of material culture enables; the lost photograph, which if ever found (or if ever taken in the first place\textsuperscript{350}) would, as the ultimate referent\textsuperscript{351}, act to heal the wound of the first loss.

When I began working on what would become Apparent Time, I had thought that my main concern would be with what is or, was, missing from the archive, like Barthes’ search for a specific photograph of his mother. Instead, this film became concerned with what is missing in the world; what parts of it have been undone.

An image of a page printed text at the start of Apparent Time cautions the viewer that “memory lock does not work” and that “the shutter speed set will meaninglessly lock and flicker in the viewfinder”.\textsuperscript{352} Taken from a 35mm SLR camera manual, this ambiguous yet authoritative text enforces connections between memory and photography and around ideas of searching for meaning through technologies, a meaning which can change or be gained through the application of different technologies of looking.

\textsuperscript{350} There are always photographs that you don’t take and the more time that goes by these unrecorded scenes, faces, or events, become less visible in your mind’s eye, whilst the feeling of loss and regret is amplified.

\textsuperscript{351} The word referent stems from the Latin referre, meaning to bring back.

\textsuperscript{352} Apparent Time film (2022) 00:35 sec.
Conclusions

This practice-based PhD began with an object; a Stick Chart which I proposed as a representation of subjugated indigenous knowledge and an example of materials in motion; an object linking the ‘here’ and ‘there’, with the ‘then’ and ‘now’. Although the inclusion of Stick Charts’ in my final submission is minimal, it was through the practice-based research methods that I developed with these objects; handling, documenting, and re-making replicas of them purposely to undo them and documenting this process that the central concern of this PhD - how contemporary art practice can explore and analyse the world-making capacity of undertheorized objects and images by un-doing them - came to the fore. It was also by considering the overlapping of Stick Charts obsolescence and post-war nuclear testing that the connections between travel, militarism, photography, observation, scale, and time became important to my research.

Both Mean Time and Apparent Time are manifest through the sparsest employment of motion; the back and forth of the scanner light, a single red laser, and the pulling of threads. Furthermore, an essential feature of each film is that they address movement and travel, yet they are made without going anywhere, unlike Simon Starlings Black Drop, which is centred around the filming of the work ‘on location’.

Raymond Bellour wrote that “…the presence of a photo on the screen gives rise to a very particular trouble…” that it stimulates in the viewer “a recoil from the image that goes hand in hand with a growing fascination.” Mean Time and Apparent Time have sought to court this ‘trouble’ which occurs when the ‘instant’ moment, suggested by the photograph, is made time-based and when the object - in all its materiality - can only be experienced visually.

In the artworks and this thesis, I have theorised looking as a form of doing and have argued that photography makes evident ‘looking’ as an artistic process. Photography also renders looking as an ethical act, both in terms of the accountability of the photographer (looking at the scene through the lens of the apparatus) and also the responsibility of the viewer of the photograph.

Writing at the temporal turn of the 20th-century, the visual and historical anthropologist Elizabeth Edwards wrote of how photographs as objects, as physical material things, “are perhaps the most ubiquitous and insistent focus of nineteenth and twentieth-century memory.” Drawing on Roland Barthes search for a photograph of his mother, Edwards stresses that when Barthes finally finds the photograph he does not initially write of what he sees in the photograph, rather “what he first describes is an object.” In foregrounding details such as how the photographs’ “corners were blunted” and that “the sepia print had faded” it is its materiality, the physical features of this long sought-after photograph, which take precedence over the image. Barthes’ analysis stresses that the photograph he had imagined does, in fact, exist and also that it has presence in his present. Photography thus appears to affect us in ways that no other medium can and consequently, the absent photograph can induce a visceral sense of loss as much as the absent place, thing or person does. This is perhaps why, as discussed in this thesis, artists such as Moray Davey and Harun Farocki have privileged the individual photograph within their practices.

Although few photographs have been taken for this PhD in reflecting upon the methods employed, I am aware of how my own previous engagement with making photographs has influenced my thinking and informed the production of the artworks included here. In my experience, working with analogue photography (and photographs) manifests a distinct sense of time. This is more than an awareness of time passing: it is a heightened experience of the effect of time on materials, processes, and events, which, in addition to clocks, watches, and calendars, are ways in which time is registered and measured.

The use of nuclear weapons, both as experimentations in peacetime testing and wartime deployment, are often considered catastrophic events, but as Žižek has said (following Heidegger) the event itself is not necessarily located in the catastrophic moment. For Žižek, catastrophe is what occurs prior to the event itself, it happens “before the (f)act” and as such, the “catastrophe is not the atomic self-destruction of humanity, but the relation to nature which reduces it to its techno-scientific exploitation.” A reduction which is also an ‘un-doing’. In his discussion of various types of events, from the French Revolution to falling in love, Žižek suggests that for something to be considered as an event, an aspect of it must be regarded as being unbelievable. Furthermore, he says that this condition of unbelievability does not have to be recognised contemporaneously to the event.

355 Ibid.
356 And myself.
but rather, it can be applied ‘retroactively.’ An example, from this PhD, is the re-reading of the photograph of Auschwitz used in Farocki’s *Images of the World and the Inscription of War*. Following this logic, the event is then excessively relational and temporally fluid.

Unforeseen aspects have become primary in this research including audio and the human voice. In both of my films *Mean Time* and *Apparent Time*, the voice is presented as precursive and interlocutory, an intermediate form of address. In these films voice and sound function to dramatize the images. This is the opposite of *Looking and being Overlooked*, the moving image component of *Parataxis*, in which the film is silent and instead it is movement — of the camera and the threads - which heightens and defines the viewers’ engagement with the objects and images. Especially for the filmmaker working with the digital edit suite, sound is edited with the eye and the ear. Audio can be edited in parallel to the image and via the visualisation of sound afforded by the peaks and troughs of the audio tracks which can be manipulated to synchronise with an image or a movement. The inclusion and focus on the voice in my films have consciously informed the writing of this thesis. The Swiss artist and writer Ursula Biemann said of her work that “it is the voice-over narration that ties the pieces together in a string of reflections that follow a subjective logic.’ For me, the monologues I have written for my films have operated as forms in which my own ‘subjective logic’ has synthesised with my textual research. In turn, these precursive texts have acted as a space in which a ‘minor’ form of writing operates as a preface to the thesis.

As militarism and travel became foregrounded as subjects in my research, the camera emerged as a primary subject and tool in my research, not least because of how historically the camera was “instrumental in the advance of imperialism, linking the ‘hard’ gaze of military-bureaucratic surveillance with the ‘soft’ panopticon pleasures of the voyager-voyeur.” These two ways of looking were entangled from photography’s beginnings as evidenced in the postcards, slides, and photographs which are taken up in through this research.

More than a feature of the objects, images, and technologies that my research has considered, ‘time’ itself, which the scholar Rita Felski has said can be “linked to the universalising logic of modernity” has become a subject in this PhD. In relation to artistic practice, the time taken-up in the making of an artwork (whatever the medium) is rarely obvious, or even evident to its viewer. The years spent

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learning skills, developing methodologies, researching, experimenting, and failing all filter into the production of an artwork and are crystallised in its final form.

The filmmaker Miranda Pennell, who also works with existing photographs (sometimes exclusively) as the subject and content of her films, has discussed at length the ‘labour of looking’ in her filmmaking. The labour of looking is also involved in the ‘unseen’ work that goes into making a film; in looking at what the viewer will later look at, or not. This includes looking (often for long periods of time) at what is then cut down or edited out completely from the finished piece. In the making of the works submitted here, the filming of ostensibly flat objects bearing an image (photographs and printed textiles) affixes time, or rather, duration to them and, in doing so, transfers the viewing time undertaken by the artist to the viewer: a conversion of this labour of looking.

This PhD has argued for the ability of textiles, particularly those that bare images, to operate as sites that foster questions concerning forms of world-making. This has been explored through the production of and engagement with printed textiles in Parataxis and the Hawai’ian shirt used in Apparent Time. As I discuss in this thesis, Parataxis has been informed by a consideration of Afghan War rugs, which can be seen to reflect Chakrabarty’s definitions of ‘worldmaking,’ as they manifest the gathering together of fibres and images to create objects that re-visualise traditional or symbolic content, for example swapping images of dragons for tanks. Given that they are largely made in UN refugee camps, ‘war rugs’ also connect with what Chakrabarty identifies as the second stage of world-making, the ‘civilising’ projects of colonialism which suggests that ‘freedom’ or agency is achievable through laborious work. Lastly, as export items, these rugs partake in a form of international consumer capitalism, echoing Chakrabarty’s final stage of world-making; globalisation.

As Julia Bryan-Wilson writes, in considering the materiality of textiles we can see that “Edges - or borders - are more prone to fraying, as they are subject to more friction.” In both Parataxis and Apparent Time, I have worked with textiles, in Bryan-Wilson’s words, “specifically for their capacity to unravel”. I have applied this way of thinking about and using textiles when working with photographs to develop a practice-based research methodology that I have come to think of as "fraying the photographic archive"; unravelling it by pulling at its fringes. As the art historian Edgar

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361 See; Miranda Pennell (2016) Film as an archive for colonial photographs: activating the past in the present PhD thesis University of Westminster, Westminster School of Media, Arts, and Design
363 Ibid. p.253
Wind wrote, “Not only is it true that great discoveries have generally ‘centred’ around the ‘fringes’ of knowledge, but the very progress of knowledge may be regarded as a persistent shift of centre.”

By imagining the photographic archive as a textile; a collection of interwoven threads of different colours and types, I can see that I have been working with photographs at the edge of the archive rather than its center. The photographs I use are found at the margins because they are either comprised of images that, on the surface, do not relate to a major subject or because, although the image is of a significant interest - such as the Parthenon - it is rendered in a ‘minor’ photographic form, such as the postcard. As has been shown through the artworks in this thesis the specific use of, and reference to, photography in this PhD is informed by the capacity of the ‘minor’, which, as Simon O’Sullivan has observed, is oriented towards the future – or more specifically to becoming legible at a future point in time. This PhD proposes that forms of minor photography are dependent on a movement, or transposition, from one place or time to another in order to be regarded as relevant and to function as conduits between the past and the future. Furthermore, as this research suggests, this capacity is imbedded is immanent in the photograph but is dependent on a certain interval in time for it to enter into discourse.

Jean-Luc Godard’s Les Carabiniers and Harun Farocki’s Images of the World and the Inscription of War both trouble the idea of the ‘war film’, in their structure and aesthetic as well as their intent; to denounce war and forms of militarism but also to “examine the rhetorical function of the photograph”.

These films articulate the filmmakers’ concern with the particularities of photography as a medium, and explicitly locate photography “at the intersection of destruction and war on the one hand, and of preservation and archiving on the other”. In this way photography’s world-making and un-doing capacities are made clear; in these films, the photograph is presented as the prime medium for humanities archive, a medium used to confirm what should remain in the world and what may be destroyed.

My moving image works, Mean Time and Apparent Time also elevate anonymous, mass-produced, or overlooked photographs whilst still enabling them to retain their status as works of minor photography so that their marginality is considered theoretically whilst the image is visually centralised. This methodology has been vital to my project as practice-based research because, as

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366 Volker Patenburg (2015) Farocki/Godard: Film as Theory Amsterdam University Press p.180
367 Ibid. p.201
Wind observed, “the supposition that some things which look marginal may be central, is one of those judicious reflections which rarely fail to open up new fields of knowledge because they introduce a change of focus.”

Engaging with historic events, images, and technologies and situating them out of time has enabled this PhD to work against the grain or arc of narrative structure. O’Sullivan has proposed that art can be “thought of as an event that interrupts knowledge - that breaks information. Indeed, art is one of the very few things we have left that is able to creatively make this break.” The artworks produced here have employed textual research through practice, their forms model my thinking, and as unique creative ‘outputs’, they seek to ‘interrupt’ ideas of knowledge, to challenge or supplement what is already known about the objects and images that this PhD has worked with.

My PhD has argued that innocuous objects, such as woven textiles, postcards, and overlooked photographs, are implicit in acts of world-making and that by un-doing them, by looking at and theorising them, through my moving image practice, they can be understood as objects which actively disguise the political reality which they are part of. As such, rather than answering a set question, this thesis, and the artworks submitted as practice-based research, have evoked questions and new lines of thought concerning; the limits of photographic representation of the event: how moving image work engages with the ontology of the photograph; and how materials (textiles, photographic surface, and small pieces of card) function as both registers of time and as potential sites of political testimony.

This PhD then does not exhaust its title, but rather, more clearly enunciates concepts and articulations of world-making, un-doing, and the minor. In doing so this thesis and the submitted artworks offer new ways of looking and thinking with the moving image and suggest that these are fertile and significant approaches for my own (and others’) future research through creative practice.

Appendix

Transcript of monologue from *Mean Time* (2020)

- Everything is blank, until it is named recorded and copied.
- Until then it is lacking, waiting to be filled, completed, interpolated and, authored.
- This, it seems, is the basis of the structure.
- Although many lines preceded it and many lines followed, there is a single vertical line that can be said to have created the New World.
- A work of aerial mark making, planetary in its scope, imposing a conceptual inscription.
- To travel by choice you need money, time, and freewill.
- To be forced to travel, to move, to be in transit, you need only be without one of these things.
- The observer, like the horizon, is presented as stable, fixed, historic, intentional, rational.
- The observer is a constant, positioning itself as the pivot of the World.
- The centre around which all else revolves.
- As image, and word the World is itself a form of mastery.
- For an Empire to exist it has to put itself in motion.
- It becomes a motion, a proposal, a signal.
- When a threshold cannot be crossed, we are forced to refer to, and enter, the archive.
- 55.95506 degrees North
- -3.18274 degrees West
- 338 ft above sea level
- This is a site of extraction and expansion.
- From here you can be seen, and you can see beyond - you can see the past, as it moves.
- Time is tide, and Mean is mind.
Transcript of monologue from *Apparent Time* (2022)

*Meanwhile*

I found myself captured, by an image

*I had been looking for a photograph of a Kili bag, an item which I recently been given a newly made version of*

*The Kili bag is an object that came into being after the Bikinian’s were relocated from their atoll to the small island of Kili - after the nuclear tests which had taken place there some years earlier had made their own home, uninhabitable.*

*In her book Woman, Native, Other Trinh T. Minh-ha uses the term ‘remote’, a number of times although she never elaborates on her use of it.*

Remote is not just a measure of distance, it is also a description of it.

*Looking at the photograph of the UN delegation visiting Rongelap – the atoll which had been decimated by the fallout of Castle Bravo - where the children played in the radiative ash floating down from the sky, which they mistook for snow - their Hawai’ian shirts surprised me, they seemed incongruous and even in Black and White they appeared garish*  

*I began to collect aloha shirts – they seem to visualise a tropical landscape and at the same time the figured a body. In my reimagining of the R and R island of Japtan I thought of the service men wearing shirts like these – I thought of them watching the radical unmaking of Elugelab, and I began to undo the shirts, thread by thread, unmaking both the image and the form.*

*In his work on the entanglement of perception, war and technology, Paul Virilio describes how, following the First World War American set about readying itself for war-craft in the Pacific by sending in filmmaker who were supposed to look as though they were on a location finding mission, a recce for future film productions*
They took photographs from planes which during the post-war peace time had swapped their guns for cameras.

This is the scene which greeted the Bikinian’s when they arrived on the small uninhabited island of Kili some 2 years after they had been forced to leave their atoll.

These are the photographs which I found before I was captured - by an image. An image which, unlike the majority of photographs used to depict nuclear testing in the Marshall Islands does, is not a record of the catastrophic event of an atomic explosion – caught on camera with high-speed film, an image of the nuclear sublime – which simultaneously provokes wonder and fear – this photograph of 3 men in a boat on the spot where Elugelab once stood is of a different category.

The thermonuclear bomb, codenamed ‘Mike’, was too big and heavy to be deployed as a weapon – it’s only use was an experimental device.

When it was detonated the island of Elugelab was vaporized and the world’s first true Hydrogen bomb left a crater almost 2km in diameter and approximately 175 feet deep.

Thermonuclear fusion also occurs within the sun’s core and so, the same process which made Elugelab disappear, also made this photograph possible.

Before the Mike test the island of Elugelab has been part of Enewetak atoll, in the Marshall Islands a country just left of the international date line and above the line of the Equator in the Pacific Ocean.

The world, and thus also the men on the boat know that the island is not there but still they go to the spot where Elugelab once stood – like an act of pilgrimage? or a tour of an ancient ruin.

I wonder, do they go there to see for themselves with their own eye to experience what Paul Virilio calls ocular reality – or do they go specifically to take this photograph – perhaps it is both.

Now that Elugelab is gone forever - do the waves miss the Island?
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