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. Transmedia Storytelling and Transcendental Experience: Using Media
Archaeology in Creative Practice to Explore Narrative and Space within the
Virtual Screen.

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ABSTRACT

“Transmedia Storytelling and Transcendental Experience: Using Media Archaeology in Creative Practice to Explore Narrative and Space within the Virtual Screen” is a PhD by Published Work comprised of four video-based transmedia projects. As a collective body of work, they are orientated around conceptual approaches to multi-platform production that aim for an intended transcendental experience, an approach that centralises the spectator.

The study develops work undertaken by the author as an undergraduate in Psychology and Philosophy, later focusing at Masters level on subliminal imaging within digital media. The approach to production developed in this thesis is drawn from phenomenological understandings of audience experience in relation to content across iterations of the virtual screen, informed by psychology theories such as Gestalt and Jungian theories.

These transmedia productions engage with creative opportunities and issues around the proliferation and fragmentation of video content and audiences, across multi-platform media, as well as the distinct challenges involved in authoring online and offline iterations of the virtual screen. The contribution to knowledge consists in the development of alternative production-based methodologies for transmedia authoring through extending the use of existing technological applications. My production-based methodology is based on the modelling of an intended transcendental experience which is catalysed through novel and/or experimental combinations of already available media tools. This production methodology creates new knowledge by extending the function of phenomenological psychology mechanisms established within still and moving image production. This extension materialises through the application of concepts such as “figure and ground” from Gestalt psychology and the language of Jungian archetypes, which are used as a guiding principle to re-structuring transmedia authorship with the intention to generate a transcendental experience.

This model of production applies a media archaeological approach to the implementation of technological tools, implementing the “new” into the “old” and the “old” into the “new” in making choices regarding format and positioning of the virtual screen. The works submitted in support of the thesis have been produced by implementing this conceptual approach. These transmedia projects explore configurations of platforms positioned at an intersection of digital arts

practice and more mainstream narrative video, spanning documentary and fiction. Overall, they demonstrate diversity in the implementation of the conceptual approach of intended transcendental experience across a range of online and offline applications that include gallery installation, interactive web-based storytelling, cinema style presentation and printed outputs.

The submission comprises of four transmedia productions *J9* (2010), *Telenesia* (2011), *The Interactive Forest* (2014) and *A Polish Journey* (2015), these are examined within their production and theoretical contexts before being analysed as implementations of an 'intended transcendental experience'.

CONTENTS

- 1.0 Introduction
 - 1.1 Overview
 - 1.2 Glossary
 - 1.3 Structure
 - 1.4 Projects
 - 1.5 Common Approaches
 - 1.6 Production Strategies

- 2.0 Contexts of Practice
 - 2.1 Immersive Interactive Practices
 - 2.1.1 Digital Arts
 - 2.1.2 Database Narrative
 - 2.2 Media Archaeologies
 - 2.3 Mediating Narrative and Space in Transmedia
 - 2.4 The Virtual Screen
 - 2.5 Intended Transcendental Experience

- 3 Production Methodology

- 4 Research Journey
 - 4.1 Computational Video
 - 4.2 Incorporating Ludic Technology Into Narrative

4.3 Creating Immersion with Multiple Video and Audio Streams

4.4 Combining Interactive and Linear Narrative

5 Transmedia Productions

5.1 *J9*

5.1.1 Intended Transcendental Experience

5.1.2 Introduction

5.1.3 The Aesthetic of Slow Media

5.1.4 Mechanism

5.1.5 Structuring Experience - Where's the Story?

5.1.6 Transmedia Incarnations

5.2 *Telenesia*

5.2.1 Intended Transcendental Experience

5.2.2 Introduction

5.2.3 The Aesthetic of Spectral Media

5.2.4 Mechanism

5.2.5 Structuring Experience - Out of Noise

5.2.6 Transmedia Incarnations

5.3 *The Interactive Forest*

5.3.1 Intended Transcendental Experience

5.3.2 Introduction

5.3.3 The Aesthetic of Presence and Immersion

5.3.4 Mechanism

5.3.5 Structuring Experience - A Time and a Place.

5.3.6 Transmedia Incarnations

5.4 *A Polish Journey*

5.4.1 Intended Transcendental Experience

5.4.2 Introduction

5.4.3 The Aesthetic of the Archive

5.4.4 Mechanism

5.4.5 Structuring Experience - Deep Time of the Journey

5.4.6 Transmedia incarnations

6 Conclusion

Bibliography

Appendix 1 – Documentation of Submitted Works on USB drive.

On-line content also available:

J9 (2010) <http://www.j9interactivevideo.com/j9/>

Telenesia (2011) <https://www.telenesia.com/>

The Interactive Forest (2014) <http://www.theinteractiveforest.com>

A Polish Journey (2015) <http://www.apolishjourney.com>

1.0 Introduction

1.1 Overview

The practice-based research presented and theorised in this thesis examines how digital media platforms can be combined within transmedia storytelling to create a range of audience experiences. The work consists of online and installation versions of the virtual screen that uncover alternate configurations of narrative and spatial immersion using screen-based media.

The aim of the research is to re-configure new and existing digital media technologies in order to develop formats for effective delivery of content. The use of media archaeological strategies involves re-appropriating, re-using and at times re-purposing older technologies. This reflects both a low-budget approach to the productions as well as a broadening of their creative and aesthetic dimensions.

The four transmedia projects comprising this body of work explore a range of fiction and documentary narrative forms, which extend from interactive video and gallery installations to web-based storytelling. The works examine how media can translate across installation and online environments, engage through interactivity and immersion and combine traditional storytelling forms within digital media.

Underlying this practice is the development of a conceptual approach for production within the virtual screen – a methodology in the use of technologies of storytelling defined by the exploration of audience experience. This ‘sculpting’¹ of technology focuses upon narrative-specific experience and helps to develop a fluid navigational device for production within evolving technologies.

The production methodology involves the uncovering and implementation of Jungian archetypal psychological structures that form the basis for the audience experience. The content generated suggests possible delivery technologies and subsequently defines the choice and positioning of the virtual screen across media platforms. The philosophical and psychological ideas around phenomenology that underpin the work being a development of previous undergraduate work and subsequent Masters level study of subliminal media.

1.2 Glossary

Archetype

The archetype describes a pure or idealised form that operates as a mould or original version from which copies are derived. It is used in a broad context for the grouping of certain characters, motifs or ideas in literature and comparative anthropology. Within Jungian psychology, the tendency to interpret the world through archetypes in mythology and religion is seen as part of a collective unconscious. This has been formative in the work of Campbell (2008) who extended this approach in comparative myth and religion, coining the term ‘monomyth’. This forms the basis for script production in Volger (1999), where the structures of narrative are presented as universal. While acknowledging that there have been critiques of this as both an ethnocentric approach (Said 1978) that functions as a form of colonialism, as well functioning as a reductive method (Toelken 1996), the archetype is implemented in this study as a universal language.

Computational

Computational is used to describe the application of algorithmic principles within creative disciplines such as computational art and computational storytelling to generate content. Within the context of computational art, this may be used for pattern creation such as generative formulae that model the physical or organic worlds (Paul 2003). Computational narrative processes are used in interactive storytelling to define narrative structure according to predetermined rules outlined in Manovich (2001).

Empathy

Empathy denotes the ability to understand and share feelings of another thus forming the basis for social interaction and intersubjectivity. The concept is key to Aristotle’s (*Poetics* 1995) understanding of drama and narrative, as identification with the emotions of protagonists facilitates engagement with tragedy and feelings of catharsis. Edith Stein (1964), influenced by the work of Husserl (1983), provided key structures for the understanding of the phenomenology of empathy in the early part of the twentieth-century.

Immersive Media

Immersive Media is used to describe the implementation of extended sensory media (such as multi-screen and surround sound) to create a sense of geographical displacement. It has a rich history that extends back throughout religious traditions and would include Michelangelo's ceiling paintings in the Sistine Chapel. This endeavour to create immersion underscores the ambitions of imagery that extends beyond peripheral vision with current iterations focusing on VR (Virtual Reality). The idea of immersion is inexorably connected to presence (see **Presence**) with Lombard (2015) presenting taxonomies of immersive media technologies and their related audience experience.

Intended Transcendental Experience (see Transcendental)

Media Archaeology

Media Archaeology is a critical discipline that examines past and present media forms in ways that sidestep progressive or teleological ideologies of technological development. Through examining past media and uncovering complexities that may have been lost in interpretations of history that construe novelty as progression, it aims to reveal value in outdated or so-called "dead media". Key theorists in this include those who have focused on: detailed studies of past media (Zielinski 2008) and (Kittler 2009), film history (Elsaesser 2016), and the waste products of digital technology (Parikka 2014).

Phenomenology

Phenomenology is a school of thought that centralises the "first person view" in understanding the structures of consciousness. This positioning of experience within the study of consciousness was the basis of the philosophical movement established by Husserl (1983) in the early 20th century. This later informed psychology schools such as Gestalt, which identified innate dispositions for the structuring of experience with a particular interest in the territory between sensation and perception.

Presence

Presence expresses an idea of complete engagement in time and space. This is the subjective sense of an unfiltered immersion within a medium whereby the

audience is in direct communication with content rather than the technology of delivery. It is most often used in the study of the effects of responsive or highly immersive technological environments such as the various iterations of VR (Virtual Reality) although there it has also been explored in relation to literature (Ulrich 2003) and television (Lombard et al 2000).

Slow Media

Slow Media is used to characterise media production that extends screen time to reflect more closely real-world processes. The Slow movement has coalesced around cultures of Slow Food, Slow Television and Slow Film conjoined by an ideology that moves counter to the accelerated speed of contemporary technologically driven society. While the Slow Film critical discipline within Film Studies has gained traction in the 21st Century, largely attributed to Romney (2010), it also draws on the stylistic influences of classic filmmakers such as Andrei Tarkovsky. European television channels have popularized the genre of Slow TV with extended real-time coverage of train, bus and boat journeys.

Transcendental

The transcendental is something beyond the ordinary. It also has connotations of the supernatural, surpassing rationality and extending into the territory of religious belief. Immanuel Kant (1998) argued that our knowledge of the world is formed by a 'transcendental idealism' whereby internal and universal categories structure our sense experience. It is used to describe both experiences that extend beyond the sensory while also suggesting a connection with the universal.

The **Intended Transcendental Experience** is an approach to content creation that orientates transmedia production around the intention to evoke an audience experience beyond the sensory input of media forms.

Transmedia

Transmedia is used to describe storytelling whereby each medium makes a distinctive contribution to the story. The term is a qualitative development from terms such as "multi-media" (the integration of technologies for text, audio, images, animations, video, and interactive content). Popularised by the work of Henry Jenkins in *Convergence Culture* (2008), the transmedia paradigm departs

from simply adapting narrative into different platforms (“multi-platform”) and is the incorporation of different media-specific points of entry for the audience into the story world.

Virtual

The virtual is a simulation of a physical object and our engagement with it is based on the knowledge that aspects of its physicality are beyond the immediate senses. It has currency in digital media technology to describe mediated worlds designed to give users of an interface the illusion of being situated in an alternate physical space and possibly interact with other remote users. Friedberg in *The Virtual Window* (2009) extends this understanding of the virtual through Media Archaeological approaches to past technologies in order to loosen the association with digital technologies.

1.3 Structure

This thesis is structured around an analysis of the media archaeological and phenomenological elements of the four projects described in the research journey, and how they develop specific audience experiences. Chapter 1 offers a contextual overview of the projects, what they entail, and how they are positioned within production practice. This is further explored in chapter 2, where theoretical and creative underpinnings are brought together in a literature review to develop contexts for the phenomenological approach to production, supporting the conceptual approach of an intended transcendental experience. The genealogy of practice is explored in relation to digital arts and database narrative and, then, extended into a study of media archaeology and the development of the concept of transmedia. This is followed by an examination of the theoretical concerns regarding the nature of the virtual screen and how my approach is informed by phenomenological psychology. Production methodology (chapter 3) expands on how tools and platforms are implemented and developed across the body of work, focusing upon how transmedia approaches respond to opportunities offered by evolving technological resources. The research journey (chapter 4) describes the development of research questions across production timelines and how approaches evolve and are re-appropriated between the projects. The examination of the four transmedia productions (chapter 5) each follow the same format, which starts with the identification of the intended transcendental experience followed by examining specific aesthetic, narrative, and transmedia manifestations. The study is brought together in a summary of how the work contributes (chapter 6) to the development of the intended transcendental experience as a methodology for transmedia production practice. The thesis concludes with suggestions for future research that may expand the exploration of intended transcendental experience and how it may apply to future media technologies and platforms.

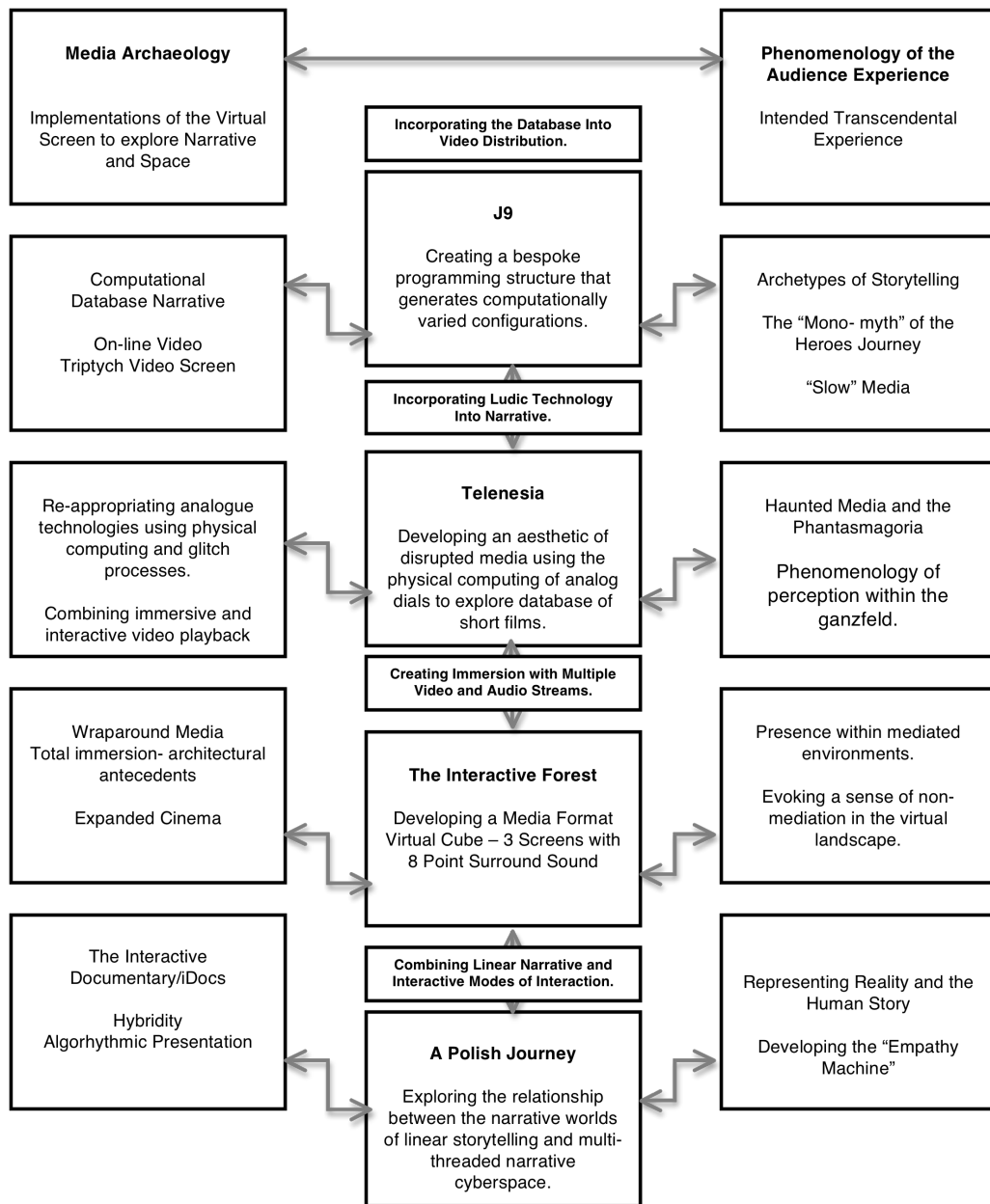


fig. 1 – The research journey in diagrammatic form – the left-hand column maps the development of media archaeological elements and the right-hand column the contributing phenomenological contexts.

1.4 Projects

The work discussed here showcases the practical implementation of my methodology of authoring for the virtual screen. The area of practice is within the intersection of digital media arts and research that moves into immersive and interactive broadcasting technologies. The ongoing rapid proliferation of technology and media platforms has engendered a media-authoring environment that appears to require continual reconfiguration to create effective audience experiences. The focus within this study upon intended transcendental experience develops a conceptual approach that functions in both current and possible future iterations of screen technology.

The projects analysed in this thesis demonstrate the workings of this approach and illustrate how the theoretically informed approaches of media archaeology, the virtual screen, and phenomenological approaches to the audience are able to extend the potential impact of transmedia production. While media archaeology is often used as a critical and reflective tool looking at the past, adopting a “rear view mirror” approach, the work here redirects this trend.

J9 (2010) recreates “armchair journeys” around the world and develops the observational sensibilities of slow television to create an evolving travel window, where locations are observed in ‘real time’ extended shots. Web-based video streaming and computational video are used to extend ideas of repetition and mutability, drawing on the archetypal structures of experience as expressed in the narrative progression of Campbell’s (2008) Hero’s Journey. (examples of these collective inherited patterns in narrative being ‘The Call to Adventure’, ‘The Road Back’²). The “archetype” has been analysed and categorised by several Western theorists and philosophers such as Levi-Strauss (1987), Propp (1968) and Todorov(1975); however, the focus of this study is on Campbell’s model because of its impact on the film structure through *The Writer’s Journey* (Vogler 1999) – a widely referenced book in Hollywood.



fig. 2 – Homepage for the *J9* website, where users chose a point of departure.

The interactive installation and website *Telenesia* (2011) is themed around the disintegration of media forms, and it incorporates analogue video, film archive and CGI (computer generated imagery) with interactive kiosks made up of knobs and dials. The audience is enveloped in a post-networked world where meaning is uncovered in a sea of noise – an embodiment of the aesthetic and philosophical impulses of “glitch culture”.



fig. 3 – *Telenesia* installation at Quay Arts.

The Interactive Forest (2014) uses a range of installation and web-based technologies to explore the representation of place. This varies from focusing on the forest as an archetypal cultural construct to an immersive audio-visual exploration of geographical space. A multi-screen film reflects the “narrative” of changing seasons over a period of the four years between 2010 and 2014, with animated still image sequences and immersive soundscapes also combining to evoke a sense of presence.



fig. 4 – *The Interactive Forest* visualisation of immersive projection using three large-scale video projections.

Finally, the interactive documentary *A Polish Journey* (2015) unites the narrative structures of conventional documentary structure with the accessibility of web-based storytelling. The film represents a journey across Europe made in 2013 to reconstruct a refugee migration during WW2, with the time shifts and dislocations of space informing the implementation of the interactive interface.

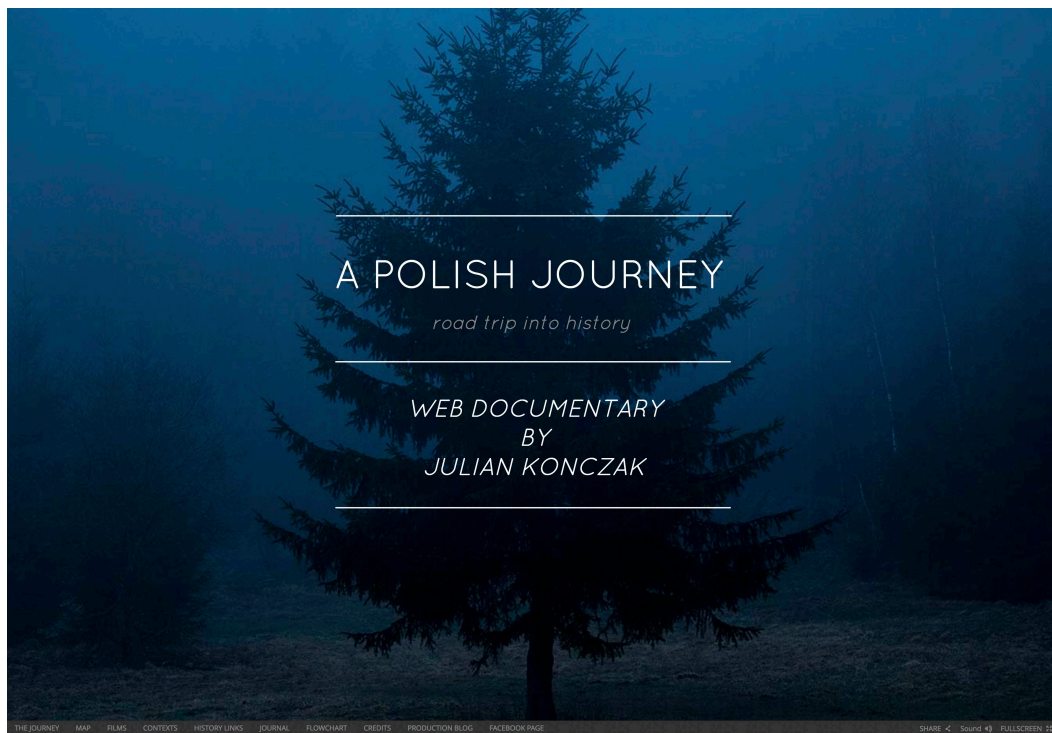


fig. 5 – Home page for web documentary *A Polish Journey*.

1.5 Common Approaches

The four works, developed over the period 2008 to 2015, overlap production timeframes, technical tools and methods employed. They make use of a range of distribution platforms, from web-based to installation, whilst employing multiple screen forms and non-linear access. The works were individually authored, while also drawing on specific skills within production teams such as coding, music production, and catalogue essay contributions. Throughout this research, I endeavour to creatively extend conventional screen narrative into the redefined spaces of the virtual screen.



fig. 6 – Timeline showing illustrating the overlapping production of projects.

While maintaining a focus on developing novel permutations of technologies to engender specific audience experiences, all of the works aim to produce integrated transmedia projects that employ experiential and intellectual modes. The works are intended to engage both sensory and cognitive responses, making the audience feel and think - each element of the transmedia project eliciting distinct and varying qualities of experience as they interact with it. Each project is built around specific and differentiated authorial choices regarding the focus of the works and their intended higher order³ function; J9 shows the interchangeability of place and experience, Telenesia explores the inherently self-destructive features of technological progress, Forest depicts the generic man-made interpretations of the natural world and A Polish Journey examines the problematisation of human migration.

	COMPUTATIONAL VIDEO	INTERACTIVE VIDEO	MULTI-SCREEN PRESENTATION	INSTALLATION	CATALOGUE	BESPOKE SOFTWARE	WEB SITE
<i>J9</i> (2010)	√	√	√	√	√	√	√
<i>Telenesia</i> (2011)	√	√	√	√	√	√	√
<i>Interactive Forest</i> (2014)		√	√	√	√	√	√
<i>The Polish Journey</i> (2015)		√					√

fig. 7 – Media formats used across the four transmedia projects.

The framework outlined in fig. 7 demonstrates the extent of media forms and it is of note that as we move towards the final piece (*A Polish Journey*) there is a “funnelling”, in that fewer distinct platforms are used. This reduction of platforms reflects a move toward exploring the possibility of developing a single interface to incorporate a range of experiences. More specifically, *J9* extends from the experience of the virtual journey as an online video piece, large-scale installation, to a printed catalogue, which curates essays on the psychology and structures of travel. A contextual reference point here is media theorist Lev Manovich’s *Soft Cinema* (2005) – itself a response to “database aesthetics” (Manovich 2005). In contrast to *Soft Cinema*, *J9* incorporates online database technologies and functions primarily as a web interface. The subtle underlying structures that form the algorithm of *J9* are embedded behind the screen: the full possibilities that the computational elements can offer becomes clear only with a high level of engagement and repeated viewing. In short, the experiential and contextual aspects of the film and catalogue were apparent whereas the interactive, computational elements are more sublimated and hidden from the viewer.

The subsequent implementation of physical computing in *Telenesia* allowed the processes of audience interaction to become central to the installation experience: the repurposing of “old” technology knobs and dials led the audience to an active engagement with the work. The aesthetic was borne out

of a lineage of media reimagining from the historical Nam June Paik and David Hall to the more contemporary Haroon Mizra and John Wynne⁴ (see fig 8). *Telenesia* extends this context by incorporating analogue interactivity into the digital screen while exploring how the disruption of old media forms could be contextualised in a novel digital space - in this case, the “island” of Telenesia.



fig. 8 – *Installation for 300 speakers, Pianola and vacuum cleaner* by John Wynne incorporated the varying acoustic properties of 300 discarded speakers to create a chorus of tonal renditions.

The construction of a virtual landscape that incorporates the separate screens as both immersive and interactive leads to further exploration of how large and angled screens can be used to recreate space. For example, Kutlug Ataman’s *Mesopotamian Dramaturgies* (2011) uses abstract video footage of the waters that surround his homeland, projected onto vertical and horizontal screens – an abstraction of the landscape, inferring a conceptual reading of the Turkish borders (see fig 9). This use of multiscreen projection to suggest a rendition of the landscape rather than the recreation of a seamless environment is the aesthetic underlying the central element of *The Interactive Forest*.

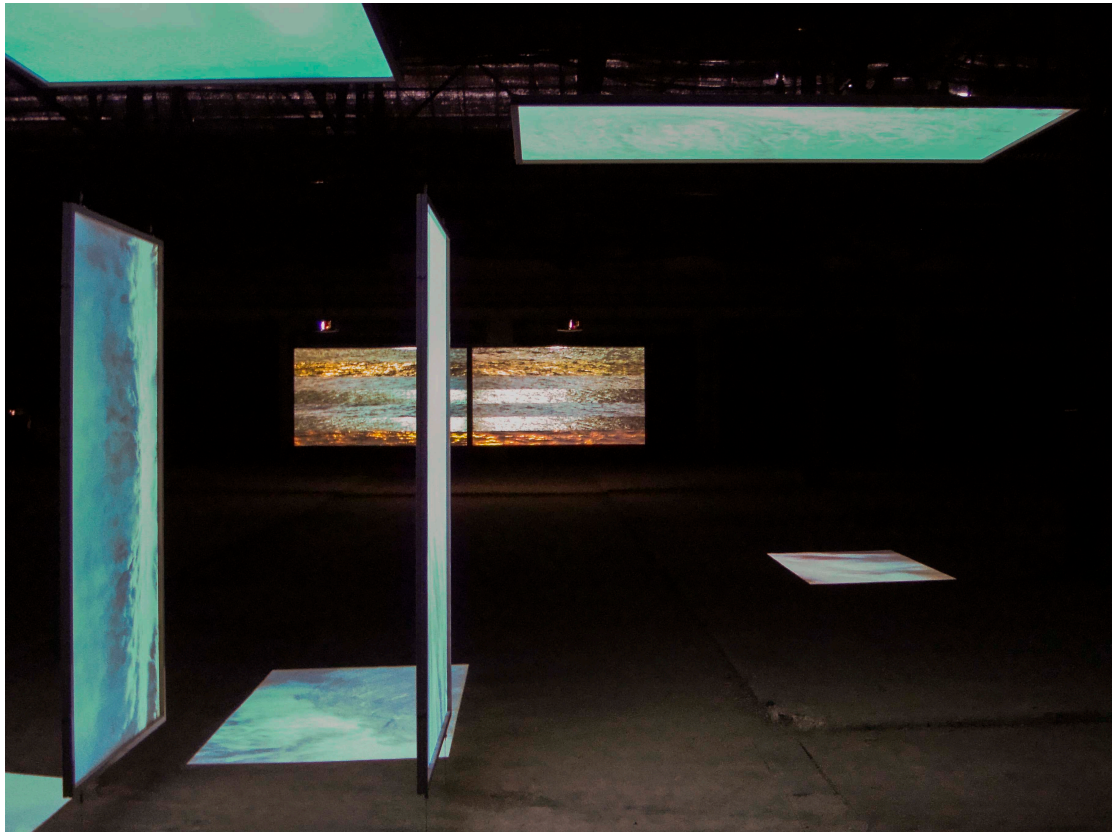


fig. 9 – Installation shot of Kutlug Ataman's *Mesopotamian Dramaturgies* (2011)

The mapping of a landscape using the virtual screen was explored in Doug Aitken's *Altered Earth* (2013) iPad app, for which the artist was commissioned to make a work responding to the geographical and economic aspects of Arles in South West France. What is notable here is that Aitken has brought together his eye for cinematic representation, as shown in the shot sequences along with the presentation of information – these two modes effectively co-exist in the same device. The increasing resolution of the portable screen offers high levels of immersion that is effectively combined with non-linear interactivity and its accompanying sense of discovery.

The containment of these two potentially contrasting aspects of transmedia in one device hints at new possibilities for media platform convergence. This becomes the basis for *A Polish Journey* – a web documentary, which has been configured as a kiosk display when presented in an exhibition context. Drawing inspiration from works such as Honky Tonk Studio's *Journey to Coal* (2011),

which imbues interactive documentary with a cinematic stylisation and aesthetic, *A Polish Journey* extends the form by embedding a linear documentary within the interface. In summary, the work is an exploration of how the immersive qualities of the linear film may be translated into the inherently fragmented world of transmedia production.

1.6 Production Strategies

Audio-visual production that makes use of the continually expanding plethora of distribution media makes specific demands on the producer. The contemporary practitioner is faced with extending creative choices, regarding the presentation of narrative and its materiality in the form of platform choice, in addition to the immaterial nature of storytelling across devices. The contemporary digitally driven and hybrid⁵ media environment has been referred to historically as “multi-platform”, with the more recent descriptive paradigm ‘transmedia’, propagated by academic and writer Henry Jenkins (2003). Principally, the term transmedia will be used to refer to authoring approaches that incorporate online and offline platforms and screen aesthetics in the context of digital media storytelling. Given the extensive and extending nature of media distribution technologies, this study limits its focus to the use of cinema scale projection, the computer screen, and the mobile computing screen, a choice driven by my craft skills as media producer.

It is my ambition to identify and outline a conceptual approach to production that facilitates the navigation of time and space within the virtual screen whereby technical choices are driven by how best to serve the narrative. The model developed co-opts the extensible nature of the virtual screen and is driven by the central idea of an intended transcendental experience⁶ for the audience. This approach builds upon ideas around the shifting nature of authorship within the inherently fragmented and atomised nature of transmedia. Furthermore, it explores how the nature of “virtual” suggests an engagement with images that is built on an understanding of the inherently subjective phenomenological responses of the audience. Furthermore, it explores how the nature of “virtual” suggests an engagement with the image that is built on an understanding of the inherently subjective phenomenological responses of the audience. The critical perspectives and the theoretical model of universal archetypes drawn upon in this study are invoked as dynamic production tools. The practice-based methodology of invoking an intended transcendental experience to navigate transmedia authorship across different technologies and audiences is a heuristic device that reframes applications and the use of existing media and their combinations. The methodology and models such as the incorporation of

Jungian archetypes, the interpretation of (trans)media as a Gestalt phenomenon and the intended transcendental experience are practical tools that extend existing critical practice.

The model is directed toward production processes, while based on a range of conceptual understandings of the audience experience, it is “praxis”, a synthesis of theory and creative practice. Within the context of this thesis, I intend to show the inherent value of media archaeological approaches to technology as a means of circumventing the fetishising of “newness”. Correspondingly, I will look beyond the limitations of technologically driven approaches by expanding into the audience-centric phenomena manifest in the intended transcendental experience. In practice, this entails identifying the central phenomena required from each work: the somatic experience of slow media; a depiction of the future; presence in a virtual landscape; and empathy with human migration. The resulting conceptual approach facilitates creative navigation of the multiplicities of transmedia production processes of the virtual screen.

2.0 Contexts of Practice

A selective overview of the contexts of research practice is developed in the following chapter by exploring the field of immersive and interactive media production as a creative discipline; the theoretical approaches of media archaeology; the transmedia model of digital media storytelling; the philosophical basis of the virtual screen; and the phenomenological orientation of the intended transcendental experience.

2.1 Immersive Interactive Practices

The area of practice investigated covers the “intersection” between digital arts and narrative video production: the projects exist in the crossover between experimental forms of digital arts and research and development within mainstream media industries. The following section will outline the interrelationship between art practice and broadcast – a dialectic whereby each

informs the other; historically manifest in the appropriation of portable video technology by video artists and broadcasters inclusion of gallery-based artists films⁷.

First of all, the terms “immersive” and “interactive” require some examination in relation to practice. The curator and critic Christiane Paul (2003) maps a territory whereby she describes such immersive work as “aimed at creating environments that can entail varying degrees of immersion, ranging from pieces that strive to envelop the audience in a projected environment to those that immerse them in a virtual world” (Paul 2003, p. 86). While offering some clarification of what this may encompass on a technical level, it also suggests a polarity between representation and simulation, with Luc Courchesne’s *Landscape One* (1997) being a seminal example of such practice. In this piece, a complex and sophisticated technological infrastructure of bespoke coding, laserdisc and HyperCard⁸ support an environment that incorporates both representation (panoramic projected imagery of a park) and simulation (virtual representations of characters that the audience can follow).

Courchesne melds the boundaries between immersion and interaction as he reflects: “expanding the field of view, immersive imaging frees the viewer’s body in multiplying the possible points of view; choosing what to look at amounts to picking a subject and making something of it. Any immersive medium is thus by nature interactive and transforms spectators into visitors” (Courchesne 2002, p. 10). Paul (2003) also identifies the slippery nature of “interactive”, suggesting, “the term [...] has become almost meaningless due to its inflationary use for numerous levels of exchange” (Paul 2003, p. 67). However, she goes on to make a significant distinction in terms of the digital, for while appreciating a painting may be interactive, “digital art goes beyond the mental in terms of navigating and assembling experience” (Paul 2003, p. 67). This distinction between mental and physical aspects of engagement with the work will be explored further as a polarity between the conceptual and the visceral.

Two contexts will be explored in relation to immersive and interactive practice: digital arts with a specific relationship to the technological evolution of media and media arts; and, secondly, database narrative as a storytelling device situated at the crossover between the high production values of mainstream broadcast television, artist’s practice and computing research programmes.

2.1.1 Digital Arts

The evolving energy of convergence facilitated by digitalisation and rapidly changing computer-based technologies in the latter part of the 20th century accelerated the push for novel media configurations. A historical overview of digital arts takes us through a series of practices from computer art in the 1970s, multimedia art in the 1980s and new media art in the 1990s, to museum and galleries curating and collecting this work by the end of the century. Michael Rush quotes the visionary writer Gene Youngblood in the introduction to his book *New Media in Art*, stating that: “all art is experimental or it isn’t art” (Rush 2005, p.7). This lateral thinking approach to media, offered by digital arts practice, informs and extends approaches to video technology.

Critic and curator Beryl Graham suggests that digital art is “art made with, and for, digital media including the Internet, digital imaging, or computer-controlled installations” (Graham 2007, p. 93). Paul (2003) refines this definition to a distinction between the use of digital as a tool and as a medium. Digital technologies have now become ubiquitous as production tools across most production processes – the uniqueness of digital arts is that the final product is located solely within the digital domain.

Paul (2003) also points out that digital art is shaped by science and technology as much as by art history, and it is this experimentation with the medium that folds back into the mainstream. Visionary elements of the media hybrid *Expanded Cinema* (Youngblood 1970) and the audio-visual assembly of Luc Courchesne’s *Landscape One* (1997) becomes the DNA for more recent BBC Research which looks to expand the television screen in conceptually similar ways. The development of surround video (Mills et al. 2011) is a two-screen iteration of immersive television whereby the standard television format is augmented by a room-filling fish-eye projection of all of the peripheral imagery of the set. Similar work in the area of multi-speaker surround sound also extend the audio experience beyond the limitations of small set-mounted stereo speakers, drawing the soundscape into the space in order to envelop the viewer (Power et al 2013).

2.1.2 Database Narrative

Paul (2003) places the beginnings of digital art technology within the context of a fictional (analogue computing) machine called the Memex, described in a 1945 article as a machine that “can be seen as a conceptual ancestor to the potential of an electronically [...] linked database” (Paul 2003, p. 9). The fascination with the database and the malleability of the interface has been the basis behind a body of creative practice that reconfigures narrative while adopting both conceptual and pragmatic approaches to video playback.

David Blair’s seminal work *WAXWEB* (1993) straddled the boundaries between narrative and database filmmaking. This 85-minute experimental archive footage documentary was also developed as a database film with its 80,000 elements accessible through a hypertext interface. The user interaction offered non-linear access to the 43 scenes, allowing users to navigate between the main narrative and additional content. The work was developed in conjunction with ZDF (German Television) and received funding from a range of sources that included arts institutions (National Endowment for the Arts) and cinema institutions (American Film Institute) (Blair 2017). This well-received work that was also covered extensively in the national press, including *Wired* magazine (Blair 2017), demonstrates the crossover of production contexts.

The potential of database narrative was concurrently explored within an academic setting at MIT (Massachusetts Institute of Technology) in the Interactive Cinema Group, set up by Glorianna Davenport and running from 1987 to 2004. New media narrative researcher Marie-Laure Ryan (2004) describes Davenport’s approach to interactive cinema storytelling as one that “celebrates electronic narrative as a process in which the authors, a networked presentation system, and the audience actively collaborate in the co-creation of meaning” (Ryan 2004, p. 379). A notable project emanating from Interactive Cinema Group was *ConTour* (Murtaugh 1996), a collaboration with designer and programmer Michael Murtaugh that developed protocols for multiple story versions within computer-based storytelling.

The subsequent digital revolution in the early 21st century of mass domestic adoption of computers and Internet reframed the interplay between broadcast media and web-based media as the quality and speed of video delivery first

matched, and then overtook, that of satellite and terrestrial television⁹. The accessibility of video and vast archives of online content meant that the database became less opaque and started moving towards a quotidian means of accessing content via video sharing websites. We can see that the database still held a fascination for artists as a conceptual tool, demonstrated in Jennifer and Kevin McCoy's *Every Shot Every Episode* (2001). In this work, the artists created a database of images by breaking down into single shots the 20 episodes of the television series *Starsky and Hutch*, allowing the user to access this content via descriptive labels.

The video database is a foundational technology for digital storytelling. Broadcasters and filmmakers use its potential to devise interfaces to allow the user to navigate time and space in a non-linear fashion. This approach can facilitate an understanding of differing perspectives¹⁰, such as the work supported by the European broadcaster Arte. *Gaza Sderot - Life in Spite of Everything* (al Muzayyen and Elmaliah 2008) is a web-based project that presents a database of short vignettes where participants on each side of the Palestinian/Israeli divide describe their lives. The power of the piece resides in its simplicity: the interface is designed around a vertical split between the two groups, and users compose their own journey and construct meaning through this framed database. Similar structures are adopted in the generously funded NFBC (National Film Board of Canada) work *Highrise* (2017) by Katerina Cizek. Recorded internationally between 2008 and 2015, *Highrise* is built on a database of the experiences of people living in high-rise apartment buildings. Both projects provide examples of this new role of the audience in database narrative as "the viewer has the power to be an active participant in the unfolding of a work's flow of events" (Lovejoy 2004, p. 167)

2.2 Media Archaeologies

Siegfried Zielinski states in *Deep Time of the Media*: "Everything has always been around, only in a less elaborate form [...] do not seek the old in the new, but find something new in the old." (2008, p. 3). Key to this media archaeological approach is the reappraisal of new and old communication technologies with the awareness that greater sophistication is not necessarily rooted in the latest

technology. Media archaeology represents an ambition to look beyond a teleological view of technological development with its corresponding technological determinism¹¹.

As a critical approach to the hegemony of digital infrastructure, media archaeology takes cues from Foucault's *The Archaeology of Knowledge* (1972), a work that re-examines the structures and narratives of knowledge and power. Foucault critiques institutions by exploring "concepts of discontinuity, rupture, threshold, limit, series and transformation" (1972, p. 21). The structures of power within the realm of technology are the manufacturers of the means of media production and distribution platforms who research and market new products based on inherent obsolescence.

The critical approach of media archaeology represents a significant break from prevailing narratives of technological progress – ideas around speed, size and proliferation. The prevalence of this narrative is illustrated in the language of the document *21st Century Technologies: Promises and Perils of a Dynamic Future* published by Organisation for Economic Co-operation and Development, (OECD 1998) in which it is noted that "one way of tracking technological change over time (and into the future) is to consider measurements of speed, size or cost. From this perspective, progress is easy to calibrate." (OECD 1998, p. 21).

Media archaeology also encompasses approaches such as "(re)mediation", whereby digital media replicates and repurposes previous media forms; an approach that emphasises the relationship between the old and the new. It focuses on how the past is continually rediscovered and presented as the new, critiques the acceleration of obsolescence - an avenue explored by the media archaeology theorist Jussi Parikka (2014) - and recognises the continual emergence of new technologies as further blurring the boundaries of the 'new'. Manovich echoes this stance by observing a historical connection between early cinema and contemporary digital aesthetics: "A hundred years after cinema's birth, cinematic ways of seeing the world, of structuring time, of narrating a story, of linking one experience to the next, have become the basic means by which computer users access and interact with all cultural data." (Manovich 2001, p. 79).

For practitioners, such perspectives are heuristic devices that enable navigation of the shifting media platforms in two key areas. Firstly, (re)mediation can be seen as a creative pathway to incorporate existing skill-bases into new

technologies. Secondly, funding and commissioning processes can orient production towards new technologies, exemplified in resources such as Channel 4's 4IP funding initiative that: "created a 'bridging mechanism' with technology hubs [...] such as gaming in Dundee and digital media in Brighton, that have evolved away from traditional television production bases." (Kiss 2017). The dot com bubble of the late 1990s created funding opportunities for new media forms such that "the digital became analogous with the alchemist's formula for gold" (Zielinski 2006, p. 32) with its grand promises of transformation.

Zielinski lays foundations for media historicisation by describing an "anarchaeology" (Zielinski 2006, p. 3). This sidesteps ideas of teleology and progress by suggesting a model for leaderless change in media forms as he states: "The history of the media is not the product of a predictable and necessary advance from primitive to complex apparatus. The current state of the art does not necessarily represent the best possible state" (Zielinski 2006, p. 7).

Media archaeology as a method places its focus on exceptions and eccentricities, inventions that contradict, circumvent and short-circuit prevailing teleological approaches that fetishise the "new". The 'deep time' of media archaeology is one that reads history as irregular layers of difference; it exists in opposition to the marketing of technological novelty. Parrika in *The Anthrobscene* (2014) problematises new technology by focusing on the layers of waste left in the wake of technological obsolescence, suggesting that we are caught in a "natural progress embedded in the narratives of the devices – a sort of parasitic attachment, or insistence on the rationality of machines and digital culture." (Parrika 2014, p. 22).

Another key theorist in the media archaeological canon, Thomas Elsaesser, expands - in *Film History as Media Archaeology* (2004) - this critique of progression of obsolescence. Elsaesser cites competing versions of media platform development from Silent Cinema to CD-Rom via the cathode ray tube and finishes with the rhetorical question: "The telos turns out to need a set of moveable goalposts, chasing the chimera of what - realism? instant communication? virtual reality?" (2004, p. 87).

The sedimentary layers of media archaeology focus on tangible relics and material objects, and for the media practitioner working within the transmedia framework, this approach facilitates an informed overview whereby past, present

and future technologies are woven together. This perspective allows navigation and implementation of media platforms facilitating (re)mediation and (re)implementation of existing skills and practices into the new as well as the (re)implementation of older technologies. It reflects the pragmatic implementations of technology undertaken within the creative work at the centre of this study.

2.3 Mediating Narrative and Space in Transmedia

The term transmedia is attributed to Marsha Kinder and her 1991 *Playing with Power in Movies, Television and Video Games* in which she describes “an ever-expanding supersystem of entertainment, one marked by transmedia intertextuality” (Kinder 1991, p. 1). This builds on Marshall McLuhan’s explorations of the relationship between media form and content, which critiqued the potential expansion of distribution opportunities presented by mass media, specificity expressed as “the medium is the message” (McLuhan 1967).

These ideas feed into the contemporary understanding of the implementation of multi-platform media practice, and in particular the work of Henry Jenkins. Jenkins describes this connection of platforms and media specificity, noting “a transmedia story unfolds across multiple media platforms, with each new text making a distinct and valuable contribution to the whole.” (Jenkins 2006, p. 97). This observation opens up some interesting territory: firstly, the positioning of authorship across platforms and secondly, the situating of the audience as a subjective nexus of multiple streams – considerations that will be reflected on in the following sections.

Transmedia production has become the basis for books, guides and conferences aimed at the creative industries, offering pragmatic approaches for engaging multi-platform media and their potentially fragmented audiences. *The Producer’s Guide to Transmedia* – one of many “hands-on” guides to production spawned in response to in this “new” new media environment sees this as a response to both the slicing of audience share across media channels and the engagement of the audience in multiple media forms, stating rhetorically:

“Why Transmedia? [...] 1. The financial imperative arises out of the increasing fragmentation of audiences across television channels across the world [...] 2. The practical reason for going down the Transmedia route is that audiences are no longer confined to one medium.” (Bernardo 2011, p. 6),

Communications researcher, Carlos Alberto Scolari argues that, regardless of the possibly faddish nature of this approach, the “logic of transmedia storytelling is here to stay” (Scolari 2014, p. 76) because transmedia strategies in storytelling offer a way to bring audiences into a cross-platform story world. Transmedia may not offer all the answers as a descriptive paradigm or complete methodological model of practice, but it does offer a language and conceptual approach for creatively and critically engaging with the virtual screens of the multi-platform landscape.

In summary, two ideas are useful here: meaning in a narrative is inherently linked to its presentation formats and, subsequently, platform choice is complicit in an audience’s interpretation of a story.

The transmedia approach to multi-platform production grew largely out of the potential confusions arising from the multiple distribution platforms. This response to the proliferating digital worlds has also been re-purposed as a 21st century marketing methodology. However, it is important to be reminded that story, myth and religious texts have always tended to reach audiences in a multiplicity of forms.

2.4 The Virtual Screen

In this section, I will clarify the term “virtual screen” along with the connotations of the word “virtual”, which has come into popular discourse as a referent for computer-mediated communication. Anne Friedberg (2009) helps us to delve into its usage and application and takes us on a historical journey from Brewster’s first use of the word in English in his *Treatise on Optics* from 1831. Brewster uses the word to describe “an intangible, uncapsizable, ineffable appearance” (Friedberg 2009, p.8).

Throughout *The Virtual Window* Friedberg (2009) explores the parameters of the 'virtual' by tracing meanings between early optical philosophy and the way in which "computer technology invokes virtual to refer to a digital object or experience" (Friedberg 2009, p.10). Underlying this approach is an attempt to re-appropriate the word and reclaim its broader connotations in order to "challenge accounts that assume that "virtual" refers only to electronically mediated or digitally produced images and experiences, and to decouple the term from its unquestioned equation with "virtual reality"" (Friedberg 2009, p. 7). Richard Gregory (1997) follows a similar path in his work on mirrors where he explores the nature of the reflected image as a displacement such that "a virtual image is a view of an object in a "wrong" place." (Gregory 1997, p. 237).

The idea of "virtual" connotes a sense of incompleteness – "almost a particular thing or quality" (Cambridge University Dictionary) "being such in essence or effect though not formally recognized" (Merriam Webster Dictionary). The "virtual screen", therefore, represents something that is partial and, by inference, somewhere there exists a more extensive or expanded version. This emphasis suggests that potential extensibility rather than the 'digital' may help locate a more refined understanding of the 'virtual'. The virtual world is, therefore, not inherently digital, although it may well be that computability is the facilitator. There is certainly an inferred multiplicity in the virtual screen by way of different possible points of view, narrative computations or simply versions that cannot be seen simultaneously. This loosening of the connection between the 'virtual' and 'digital' allows us to position the virtual screen as an audience experience where there is both a total engagement in the present *and* a knowledge of its concurrent partiality and extensibility. The sense of depth and immersion of the virtual screen comes from this understanding rather than rooting the concept in technological infrastructure such as Virtual Reality (VR).

2.5 Intended Transcendental Experience

The subject/object debate has haunted Western philosophy for centuries distilling around the mind/body distinction. This dualism, between thought and language and the existence of a separate material world, was refined by Descartes' argument that "the ideas in question are produced without my

cooperation and often even against my will. So, the only alternative is that it is in another substance distinct from me” (Descartes 1986, p. 55).

The idea that experience or phenomena could form the basis for our knowledge of the world became the focus for phenomenological psychology - Edmund Husserl's (1983) move towards closing the mind/body distinction by making the world of experience primary, suggests that “objects” are internalised experiences. Moustakas (1994) comments “phenomenology attempts to eliminate everything that represents a prejudgement or presupposition [...] Meaning is created when the object appears in our consciousness” (Moustakas 1994, p. 27).

The idea that we are unable to access in any fidelity or “truth” in a world beyond our perceptions may be rooted in philosophical concerns, but it has also been borne out in contemporary studies in neuropsychology. Neuro-scientist, Dr. Beau Lotto (2017) derives interpretations through empirical examination of our sensory responses and states “Kant argued that we can never have access to [...] the “thing in itself” of objective reality [...] now neuroscience has an answer [...] we don't see reality. The world exists. It's just that we don't see it. We do not experience the world as it is *because our brains didn't evolve to do so.*” (Lotto 2017, p. 6). Lotto draws on a particular set of inferences from his study of vision and provides an evolutionary survival basis for his observations, using empirical data to support the philosophical assertions of Kant. Kant (1998) expresses an inherent dualism between that we are unable to experience, the “thing-in-itself” or noumena, only the limited world of phenomena, while Lotto demonstrates these limitations and argues that they have been constrained by evolutionary survival mechanisms.

The phenomenological roots of Husserl became the cornerstone of the Gestalt school of psychology – a study of mind that has a particular interest in ruptures in perception caused by optical illusions. The key perceptual terms of reference are the “figure” and “ground” (Wertheimer 1923); the figure being the form (against a background) that we configure from a sea of sensation, perceptual white noise, or what is often termed the “ganzfeld”¹². Rudolf Arnheim (1954) in *Art and Perception: A Psychology of the Creative Eye* introduced these ideas from the field of perceptual psychology into art criticism, arguing that “Looking at

the world proved to require an interplay between properties supplied by the object and the nature of the observing subject” (Arnheim 1954, p.6).

This phenomenological understanding of the visual as a subjective response gained traction in the area of psychologically informed production with Richard D. Zakia’s (2013) manual of photographic imaging *Perception and Imaging: Photography - A Way of Seeing*, as well as with textbooks for the moving image such as Bruce Block’s *The Visual Story: Creating the Visual Structure of Film, TV and Digital Media* (2007). These texts share a desire to present a rule-set for production, driven by the understanding that whatever may be presented in the frame is necessarily interpreted by the subject as ‘phenomena’. Block summarises this co-option of theory into practice by stating: “The Gestalt inquiry is particularly interested in the disparities between what may be said to be present by objective measurement and what the viewer may perceive to be so – the skilled practitioner in this field being able to ‘understand and control these pictures’”. (Block 2007, p. 2).

If tangible artifacts such as paintings or photographs are subject to the potential ambiguities of perception, the transmedia project with its multiplicity of form offers even greater variation in terms of audience experience. The use of varying formats, platforms, timeframes and locations means that transmedia operates between both convergent and divergent modalities. By invoking Friedberg’s description of the collapse of the fixed perspective – that the virtual screen breaks with the traditions of single point perspective in the visual arts (Friedberg 2009, p. 192) – we can see that the audience is increasingly experiencing a shape and time shifting perceptual puzzle, or a “phenomenological tangle” (Friedberg 2009, p. 150). The (re)mediating aspect of new technologies, along with a producer’s drive to create coherent story worlds of branding, character, location and so on would suggest a weaving together of formats. However, we also need to remind ourselves that while “transmedia is a response to a fragmented audience experience [...] we should [...] be talking about the “atomisation” of the audience” (Scolari 2014, p. 71). Sensory information is dissipated across time and space via divergent media platforms and, correspondingly, convergence is located in the subject. Thus, it can be argued that insights offered by phenomenology, whereby the observer is forming much of the image in the process of perception, are compounded in the fragmented multi-platform transmedia universe. The fact that media is increasingly dispersed across space and time and stretched beyond the single

frame makes transmedia production increasingly subject to the mutable positioning of each audience member.

The audience experience is always centralised, regardless of the particular media forms, being foundational to entertainment, educational and advertising genres. It is beyond the core focus of this study to provide a comprehensive topology of human experience, so four key areas have been chosen for examination in order to map an intended transcendental experience. In summary, the areas are: journey, phantasmagoria, presence and empathy.

The intended transcendental experience drives the representation of time within the archetypal structures of narrative - identified within the Western tradition in Aristotle's *Poetics* (350 BCE). This work developed narrative theory in distinguishing form and content and in so doing defined essential elements for the construction of drama and the presentation of content, thereby identifying structures that were required to elicit specific audience responses. This commonality of structure in storytelling and mythic form was developed in the early twentieth century in the work of Jung, whose ideas around the archetype suggested a deeper structure to the elements of narrative formulation. Jung clarifies his use of the term and points out how the archetype "is often misunderstood as meaning certain definite mythological images or motifs. But these are nothing more than conscious representation [...] archetype is a tendency to form such representations" (Jung 1990, p. 67).

Mythologist Joseph Campbell coins the 'monomyth'¹³ in *The Hero with a Thousand Faces* (2008) and argues for a universal pattern of phenomenological experience and culture so pervasive that "religions, philosophies, arts, the social forms of primitive and historic man, prime discoveries in science and technology, the very dreams that blister sleep, boil up from the basic, magic ring of myth" (Campbell 2008, p. 1). The universalism inherent in the implementation of archetypes has been critiqued from a number of perspectives that range from charges of ethnocentrism and a cultural colonialism (Said 1978), a position that is made explicit by the Swiss-trained Jungian, Kuwai (1998) who, on returning to his native Japan, found that the rules he had learnt did not concur with Japanese culture. Toelken (1996) goes on to suggest that the foundations of Campbell's (2008) "monomyth" suffers from a reductive approach to cultural difference stating "Campbell could construct a monomyth of the hero only by

citing those stories which fit his preconceived mold, and leaving out equally valid stories [...] which did not fit the pattern” (Toelken 1996 p 413).

This language of archetypes has, however, been demonstrably impactful in American and European media production. Vogler (1999) applies these ideas to writing and production in large film studios. In *The Writers Journey* (Vogler 1999), the ‘monomyth’ becomes both a structural device for storytelling as well as an experiential creative tool for the writer themselves. He notes: “The way stations of the Hero’s Journey emerge naturally even when the writer is unaware of them, but some knowledge of this most ancient guide to storytelling is useful in identifying problems and telling better stories” (Vogler 1999, p. 7). This understanding of how the audience responds to and elicits archetypes can, therefore, become part of authoring an intended transcendental experience. The implementation of archetypes across the projects is outlined in fig. 10.

<i>J9</i> (2010)	<i>Telenesia</i> (2011)	<i>Interactive Forest</i> (2014)	<i>The Polish Journey</i> (2015)
The Hero's Journey	The Tarot	The Four Seasons	Seven Ages of Man
1) Ordinary world 2) Call to adventure 3) Refusal of the call 4) Meeting the mentor 5) Crossing the first threshold 6) Test/ allies and enemies 7) Approaching the innermost cave 8) The supreme ordeal 9) The reward 10) Road back 11) Resurrection 12) Return with the Elixir	1) The Fool 2) The Magician 3) The High Priestess 4) The Empress 5) The Emperor 6) The Hierophant 7) The Lovers 8) The Chariot 9) Strength 10) The Hermit 11) Wheel of Fortune 12) Justice 13) The Hanged Man 14) Death 15) Temperance 16) The Devil 17) The Tower 18) The Star 19) The Moon 20) The Sun 21) Judgment 22) The World	1) Spring 2) Summer 3) Autumn 4) Winter	1) The Infant, 2) The Schoolboy 3) The Lover 4) The Soldier 5) Justice 6) The Fool 7) Death

fig. 10 – The organisation of film material across the four projects illustrating audience experience as eliciting archetypal structures.

The second area of phenomenological experience explored is the structure of the fantasy and the imagination - phantasmagoria. Mythologist and novelist Marina Warner extends the Jungian approach to story to develop explorations of spirit and soul in *Phantasmagoria* (2008). In her study, Warner concentrates on phenomena and the imagination, imbuing the subjective world of the subject with epistemological primacy, stating “the crucial role of subjective perception [...] carries my story to various speculative models of the mind [...] pictures seen with hallucinatory vividness by imagination alone” (Warner 2008, p. 14). The stated aim of the work is to identify the phenomena of soul or spirit on a journey through media, which leads from wax death masks to film. It is the enduring idea

of a transcendent experience “beyond” that binds her study: “even when we profess agnosticism [...] in a supernatural order, we are the inheritors of much classical cosmology and medieval philosophy about spirit and soul” (Warner 2008, p. 9). In other words, we may invoke our rationality to deny the supernatural but the “uncanny” nature of worlds beyond perception are part of our cultural and psychological make-up.

Ideas around “otherworldly” or transcendent elements in media have migrated into more recent explorations around ‘presence’: a conscious or even unconscious sense of translocation into a virtual environment. Heim in *The Metaphysics of Virtual Reality* (1994) reinvigorates the language of the hidden by ascribing “magical, alchemical properties” (Heim 1994, p. 116) to Virtual Reality (VR) and, furthermore, evokes the deep roots of the mythic: “the essence of the technology [...] calls forth the cultural energy needed to propel it forward. Often a technological vision taps mythic consciousness and the religious side of the human spirit” (Heim 1994, p. 118).

This paradigmatic shift from focusing primarily on sensory-based media technology to approaches defined by experience centres around the idea of presence. It implies an epiphenomenon of user engagement whereby the user experiences an “illusion of nonmediation” that occurs when a person fails to perceive or acknowledge the existence of a medium in his/her communication environment and responds as he/she would if the medium were not there.” (Lombard and Ditton 1997).

This experience of non-mediation is not limited to the virtual screen, and literary theorist Hans Ulrich Gumbrecht in *Production of Presence: What Meaning Cannot Convey* (2004) outlines methods for literary criticism that point toward “a pledge against the systematic bracketing of presence, and against the systematic centrality of interpretation” – a call to engage with the experience of the text. Gumbrecht’s position is that the experience of being lost in a text is as important as the close textual analysis of the hermeneutic critical perspectives. This is an extension of Barthes’s emphasis of the role of the reader as “a producer of the text” and his differentiation between “writerly” and “readerly” texts (Barthes 1977) – in this project, the experience of immersion is essentially readerly. Most importantly, this is a shift away from textual analysis and toward understanding the experiential.

We are, therefore, looking at mediated communication whose definition cannot be constrained by words on a page or pixels on a screen and, furthermore, can usefully shift focus away from a material analysis to understand higher order functions such as immersion and empathy. The ability of media to evoke phenomena where experience becomes transparently internalised borrows from film theorist Giles Deleuze's assertion that "the screen is the brain" (Deleuze 1986). Deleuze reads the screen as a journey from somatic and sensational to the communication of social functions. This process that allows the audience to "stitch" into a film's narrative space or story world and make sense of shots and angles along with the ability to seamlessly identify with characters forms the basis for the concept of suture¹⁴. The renowned film critic Roger Ebert argues that "the movies are an empathy machine, drawing us into other lives, allowing us to identify with those of other races, genders, occupations, religions, income levels, or times in history." (Ebert 2008). This focus within the representational aspects of film has been more recently re-incorporated into thinking about the simulatory nature of the virtual with the producer Chris Milk's claim that VR offers the "ultimate empathy machine" (Milk 2015).

The device of the intended transcendental experience is, therefore, rooted in a phenomenological approach to media production. Experiences such as "journey", "phantasmagoria", "presence" and "empathy" are drivers for the imagination of the audience and enable engagement with the archetypal across potentially incongruent media platforms.

3 Production Methodology

All four projects in this study have video as a central component and adopt a transmedia approach to production. They were designed to work across platforms and media production outlets such as exhibition, print and web publishing. The work resulted in three catalogues (printed and electronically published as PDFs) involving commissioned writers to support the examination of the specific subject areas of each transmedia project. Sharing processes were developed as a form of audience engagement on three of the projects (*Telenesia*, *The Interactive Forest* and *A Polish Journey*) using online curation tools such as Scoop It, 'How To' videos, blogging software and social media.

The projects use extensible short form video formats to enable distribution via festival curation and other outlets, by segmenting the work into self-contained 1 to 5 min clips. While the focus was often on the visual component, particular attention was paid to the soundtrack, for although the visual prefaces meaning, audio has the ability to directly evoke emotion. Incorporation of sound to affect the emotional tone of a visual image can be summarised with the assertion “by using music [...] the meaning of the object is not changed, but the object itself takes on a new colouring” (Tarkovsky 1989, p. 158). The use of varying audio styles across the projects precipitated collaborations with a range of musicians using piano improvisation, electronic sequencing and sampling.

The underlying methodological approach involved exploring how the craft skills of film production can be (re)mediated into different configurations of the virtual screen. The creation of narrative within the works involved incorporating a range of presentation formats and devices along with the use of bespoke audio-visual strategies depending on the intended transcendental experience. This informed choices regarding technicalities such as screen resolution, the professional quality of acquisition tools and the chosen final look of the film.¹⁵ Drawing on professional skills in cinematography and editing, much of the initial development involved devising tests for the look and feel of each project.

The multiple Academy Award winning cinematographer Emmanuelle Lubezki describes such processes by noting that “from an instinctive, craftsman point of view, whenever I'm going to start a movie or buy a camera or start a project, I do a lot of tests. All these tests help inform me of how I want to shoot the movie, which equipment I'm going to use, how I'm going to mix equipment and so on.” (Lubezki 2016). This is a widely employed practice in mainstream commercial film and documentary production.

These film clips created at the development stage of each of the projects formed the basis for funding applications, dynamic idea boards for collaborators and material for interactive and installation testing. In each case, they largely consisted of 2-3 minute segments devised over a period of months to formalise the visual and audio texture, edited from work in progress cinematography and audio.

The films were crafted on the basis of creative application of technology and the use of acquisition formats ranging from Super 8 and 16mm film, to DV tape,

DSLR filmmaking and RAW video acquisition. Choices were constrained and guided by budget, and the implementations of technologies reflect a “trickle down”¹⁶ of availability.

Format choice was also driven by ergonomics: the observational aesthetic of *J9* required an unobtrusive use of a camera in public places. The film look of *Telenesia* incorporated some of the stylistic choices often associated with experimental filmmaking, for example, the particular hand-held look of Super 8 and in-camera speed changes that became part of the visual language of Derek Jarman; the fluid cinematography of light and nature in *The Interactive Forest* lent itself to more sophisticated camera supports and the look of *A Polish Journey* necessitated high quality video with the use of a separate sound recorder. The films themselves were produced and directed by myself and involved collaborations with professional musicians and post-production specialists.

This approach was extended into the use of software solutions and presentation formats with emphasis on the use of commonly available technologies in addition to repurposing existing code and equipment. The projects did entail varying amounts of coding, so it was often useful to build a linear model in order to effectively communicate aesthetic intent to a programmer. Presentation methods were adopted that tended toward the use of widely available consumer-grade computer and audio-visual display equipment along with generic gaming tools rather than bespoke and specialist hardware.¹⁷

Designer and writer Ippa (2001) suggests that the development of interactive media involves three kinds of testing: demos, prototypes and pilots (Ippa 2001, p. 90), with demos being linear walkthroughs, prototypes being workable models and pilots being small-scale releases. Work on these projects focused on demos and prototypes with the initial installation or release usually being subsequently refined. In some cases, the work was refined over more than one installation, such as *The Interactive Forest* evolving over two exhibitions.

The test video segments were used in prototypes of the virtual screen so that the functionality of coding could be assessed within the aesthetic of the film, with versions of multi-screen presentations mocked up in the compositing program After Effects. In this way, pre-visualisations of display outcomes that rely on bespoke coding and/or physical installation were developed. The processes did,

at times, involve extended R and D and redundancy, with the ideas behind the interactive installation software for *Telenesia* and *The Interactive Forest* coming from attending workshops in Arduino and Max/MSP¹⁸.



fig. 11 - Prototype for the *Telenesia* interactive box with analogue dials catalysing digital transitions.

The projects were each developed over extended periods of time (between 4 and 6 years), with funding and budgets being available based on the processes being undertaken at a particular point; they were not commissioned from the outset in their totality. The stages are broadly definable as seed, production, and finally, the exhibition funding which came from academic research funding along with support from Arts Council England for three of the projects.

Initial work on the *J9* project involved creating a computational model of 11 iterations of the source material. The work was in part a response to my commercial work as a digital video editor, where shots are often replaced and re-purposed in the same template; therefore, in this project, the shortcuts in an editing program used for replacing footage were employed to develop multiple versions from a master clip.¹⁹ This facilitated the ability to visualise how the work

would function as a series of linear sequences. Computationality was further explored by using the DVD scripting ability in DVD Studio Pro²⁰. However, it was found that the delay involved in the DVD drive searching for segments to play did not function with the intended fluidly. The devising of the final online delivery system was carried out by an interactive designer at Southampton Solent University (SSU), who was commissioned to work on the delivery system as part of an undergraduate work experience unit. *J9* is an implementation of PHP and HTML 5, enabling a degree of complexity in the functionality of the online video player in playing back generated lists of clips. The use of metatags allowed playback to access a database and facilitated a process whereby at each edit point the algorithm would choose between a computed set of different locations.

Telenesia used bespoke interactive software patches in Max/MSP and Arduino to facilitate the analogue interaction with digital technologies, and a specialist was commissioned to write the code. The conceptualisation of the project was developed through attending artist's workshops, while the creation of the installation software patches required an experienced programmer²¹. In addition, the gallery space re-purposed a Home Cinema 5.1 amplifier to send 5 channels of white noise to the installation kiosks – a cost-effective way to deliver multi-channel audio. The Wordpress website also incorporated basic HTML code to allow the user to choose a random virtual Tarot card (HTML) that modelled the printed deck available as part of the exhibition catalogue.

The Interactive Forest has an extensive web presence created with a popular Wordpress template in order to allow users to access a "virtual forest" by making use of the Googlemaps API to allow users to navigate content. One video piece involved commissioning bespoke software in MAX/Msp that superimposes the silhouette of a viewer onto a textural animation of the forest. The exhibition triptych involved incorporating the Matrox generic graphics card splitter and working within the limitations of running a stretched single QuickTime file and also made use of equipment and knowledge of multi-channel audio systems from Andrew Horsburgh who also set up the 8-channel audio.

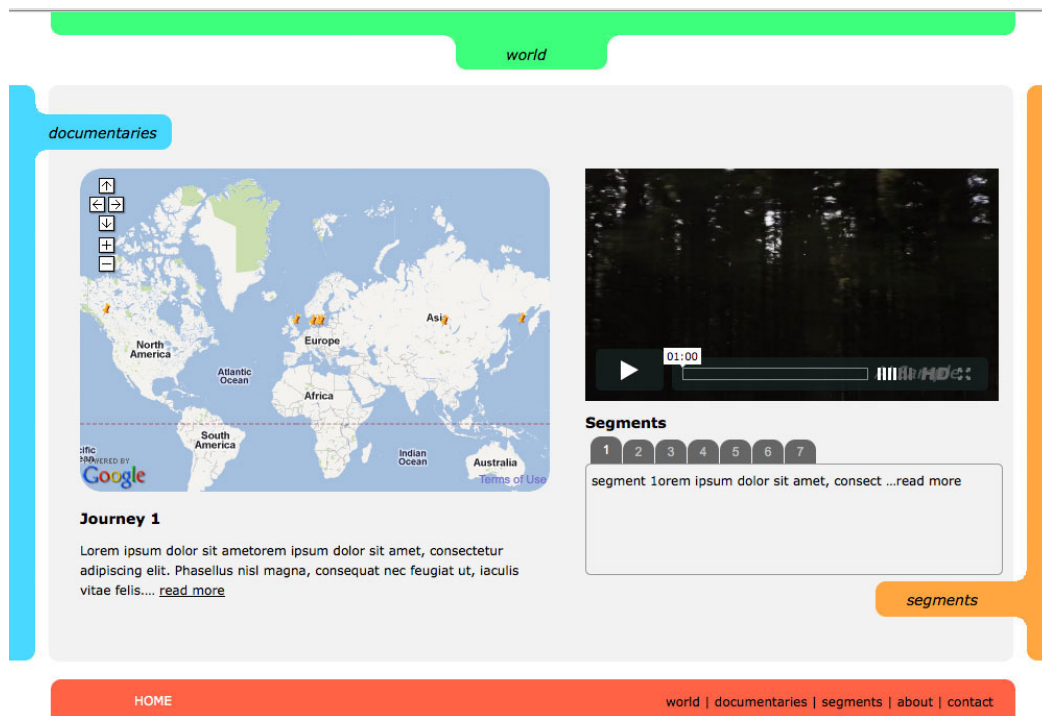


fig. 12 - Prototype Web interface for *A Polish Journey*.

A Polish Journey required a specific functionality because it was funded as a project to work on portable tablet/iPad, with initial stages involving the commissioning of a software solution using Joomla. Conceived prior to the release of the iPad, the intention was to engage with what was proposed to be a qualitatively different “screenspace” (Verhoeff 2012, p. 65). This initial prototype was discarded in favour of the software Klynt that became publicly available, offering the required functionality and a system of updates. The project was initially authored with the standard version and later the full professional version, which the software producers Honky Tonk Studios made available to the project²².

4 Research Journey

The next chapter follows the development of the four projects and how the different transmedia elements become prominent, while also being re-used and reincorporated in later work. Initial research focused on computational video and the database (*J9*), subsequently evolving into an exploration of the interface and

how ludic or playful interaction could become part of the immersive experience (*Telenesia*). The multi-channel experience that started with the *Telenesia* installation became the focus of *The Interactive Forest* – creating an immersive audio-visual environment. While these three projects explored the relationship between the segmented video of the database and sequenced presentation, the sense of narrative had been more abstract and conceptual. The single channel and its variants subsequently became the focus for *A Polish Journey*, with the aim to create a linear narrative and the possibility of evoking audience empathy within an interactive work.

4.1 Computational Video

For the purposes of this study, the term computational video is taken to mean the use of computer algorithms to access a database of film clips in order to generate a sequence or story, encompassing database narrative with a specific focus on playback systems²³.

The implementation of computational video in *J9* was a response to concurrent developments in video distribution, where the revolution of digitalisation gave broadcast television both higher quality and access to multiple video streams²⁴. It was also prompted by the interactivity of browser-based computer systems that were then benefitting from the proliferation of broadband technology. In 2008, video on the web was in nascent form, with YouTube in its early stages and the technical elements of video streaming comparable to television being a “work in progress”. From a technological perspective, this overlap between the computational elements of digital delivery and high-quality video offered novel possibilities.

The work is situated between the ‘lean back’ experience of television and film and the ‘lean forward’²⁵ experience of gaming and active interaction. It endeavours to create an intended transcendental experience of passive immersion, while at the same time facilitating user choice and the configuration of that experience. Within the context of media archaeology, it is an attempt to put the “new” into the “old”: to computationally configure a linear video that plays out as a sequence with no interface. This web-based work starts with a travel

booking interface that the “user” configures and makes choices before becoming an “audience” of the computational video that takes them around the world.

The interaction offered by disc formats, such as the CD-Rom and DVD Video, competed with the limited interactive capabilities of interactive television protocols, such as the early text-based CEEFAX, later developed into red button technologies that offered viewers access to additional program content. This facilitated the move away from a monolithic television screen into a “virtual screen”; a move towards the TV screen being a medium for mass-scale interaction. This, in turn, creates a shift in appearance in order to accommodate an interface such that “delivery and display have helped to remake the visual syntax of the screen.” (Friedberg 2009, p. 3).

Elements of the aesthetic of the piece had been explored within the offline installation *Mass Production* (Konczak & Richards 2006), an interactive video piece that used webcams as motion sensors to trigger videos from a database. The algorithm in this work was based on a delayed averaging of movement within the exhibition space, so if there was more movement, the activity within the selected clips would come to a halt. The camera focused on the human traffic of crowds at Shibuya crossing in Tokyo, so the crowds would “cross the street” when there was little movement in front of the screen. In this previous work, the interface remained occluded; it was only by experiencing the work over a period of time that the algorithm of the interactive engine would be revealed.

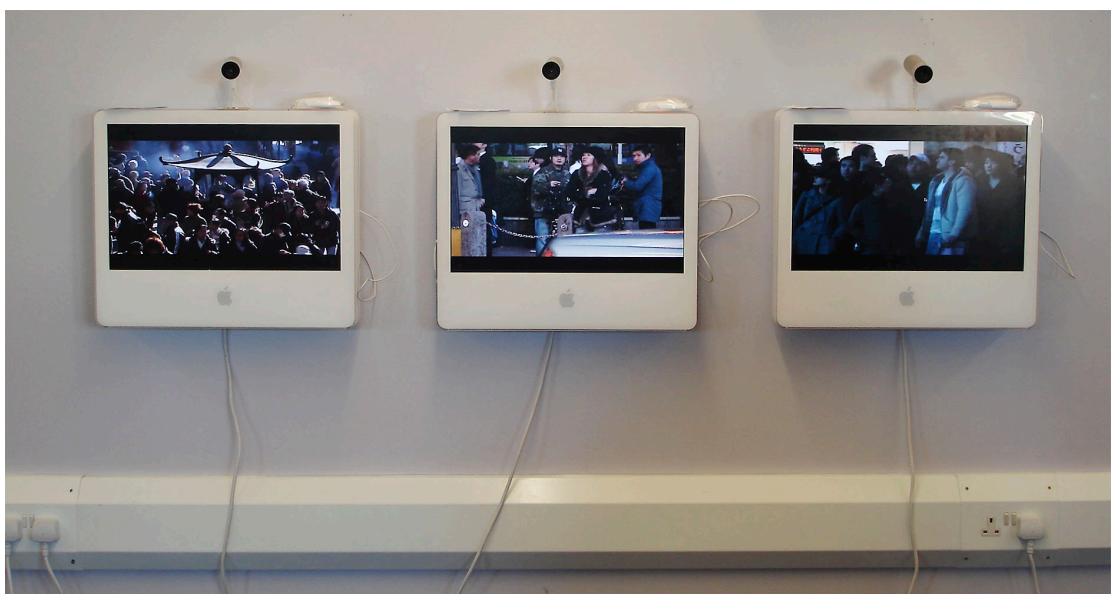


fig. 13 – Installation shot of *Mass Production* (2006).

The static camera angles of the three separate screens each offer a different perspective of the street crossing (itself one of the most famous and filmed street crossings in the world) – a reflection of Friedberg’s idea of a media “window” (Friedberg 2009, p. 150). The metaphor of the window extended into the content of the work, because much of the material was filmed from a static camera through the glass of cafes and walkways. This style evoked the observer in Edgar Allen Poe’s 1840 short story *Man of the Crowd* (Poe 2008). Elsaesser notes a correspondence between gazing out onto the city through a window and the film camera, “Poe’s protagonist is glued to his window for much of the time as if to a screen...it is as if Poe’s narrative ‘anticipates’ or emulates some typically cinematic techniques” (Elsaesser 2016, p.194)

This style of database filmmaking was extended into *J9* with back-end²⁶ coding generating new playlists. The project draws aesthetically on developments in interactive gaming and the online database to offer viewers an experience of multiplicity in the virtual. Through the use of online delivery, it also built on previous computational projects such as the online *Cracked Cities* (Konczak 2005). The strategy in *Cracked Cities* was to bypass the bandwidth issues in delivering audio-visual content online by repurposing code used to generate Flash adverts in order to construct a randomly generated audio-visual sequence in high definition (HD) video quality.

The *J9* user experience is contained within the confines of a web interface and operated as “point and click” so that the lean forward / back modes are emphasised. The corresponding development of *J9* as a gallery installation did enable a more open exploration of content, which included a kiosk version of the interactive version, a cinematic-style presentation of the film content, as well as an exploded poster-print-sized version of the exhibition catalogue.

4.2 Incorporating Ludic Technology into Narrative

Ludic interfaces bring an element of playfulness and unpredictability into computing and move away from the logic of point and click.

The exploration of how an interface could be developed away from the strictures of keyboard and mouse led to the development of *Telenesia*, which, while also

adhering to a transmedia model of using the potential of multi-platform delivery, functions principally as a gallery installation. Moving into a more open-ended engagement with the audience, the central point of the exhibition – an “island” inhabited by interactive boxes – allows the audience to explore a database of video clips in a truly non-linear and playful way. The sculptural nature of the installation offers complete immersion when the audience enters the space defined by a projected seascape/sunset and wash of white noise.

The five interactive boxes – each with a screen and a speaker – were designed in such a way so that the process of interacting with the interface facilitates the movement into the story world. The knobs are unlabelled and a process of trial and error leads the audience to discover which one “dials in” the playback of short video clips (other dials control picture quality). The boxes were constructed using physical computing (the use of analogue inputs to control digital processes²⁷) and were designed to resemble the interaction offered by pre-transistor television and radio. This conjunction of analogue and digital technologies and the modeling of a pre-digital style interface that used recycled materials was chosen to connote a technological world that was broken down and moving backwards. The installation space and its transmedia elements were created to enable the user to explore and construct their own *gestalt*, such that each user experience would be manifestly different and formed from the individual navigation of the space and the kiosks.

4.3 Creating Immersion with Multiple Video and Audio Streams

A sense of immersion in an environment can be created using angled screens and surround audio in order to evoke presence within a virtual world.

The multi-channel approach to the video installation in *Telenesia* comprised the recreation of a fictive space in the gallery and was adapted in *The Interactive Forest* to recreate a landscape or, more precisely, the phenomenon of presence in a virtual space. *The Interactive Forest* is an overarching description of a number of individual pieces that worked together in the installation space. The central video, *The Forest Seasons*, follows the linear seasonal shifts of the landscape – it moves away from audience interaction and “play” towards a more

simple and straightforward sensory immersion. The time of arrival during the 45-minute loop and physical navigation forms the basis for the audience experience.

This representation of space within *The Forest Seasons* returned to the use of a triptych screen explored in the work *J9* and further examined how peripheral vision and shifting attention across a visual field may offer a deeper sense of the extensibility of the virtual. In this instance, the screens are presented at a 90-degree angle such that the audience was enclosed within a box requiring conscious movement of the eyes and head to “read” the two screens at either side. Additionally, the sound field was created in three dimensions, with the eight speakers positioned in each corner allowing sound sources to be placed on the basis of different heights, depths and distances, in addition to the usual left and right placement of stereo sound.

The orchestration of visual editing and camera movement reflects the rhythms of different times of the year and varying weather conditions, with music and sound effects being placed accordingly, thus rendering the cyclical changes of the landscape as a device for sensory immersion. This novel configuration of narrative content and installation develops the application of readily available technologies to create sophisticated audio-visual environments that traditionally demand bespoke higher-end technologies.

4.4 Combining Interactive and Linear Narrative

Interacting with a video database offers a non-linear experience, as authored narrative structures become re-arranged by the user.

Common to the three previous transmedia works is a distinction between platform specificity of the different elements and their exhibition within the interactive browser-based interface and large scale projected video installation instances. *J9* is based on a database of clips that form a linear sequence, although it is the nature of its virtuality and extensibility that lent it meaning. The database of 1-minute videos that form *Telenesia* speak to the archetypal journey of the Tarot when placed end to end. *The Interactive Forest* loop can function as a short landscape film. However, a key question remains: how to create a

singular transmedia work that can speak both to the audience for linear content who want to “lean back” and to the users who want to “lean in”?

The prototype interface for *A Polish Journey* functioned as a pilot and resulted in a proof of concept; however, when the video content was ready for distribution, the interactive authoring software Klynt became available – a product that offered the necessary functionality and customisation. The implementation of “off the shelf” solutions proved more functional in terms of the ability to update versions in line with changing browser protocols.

The resulting interface allows a conventional documentary to expand into a series of virtual screens and curated content that allow linear and non-linear exploration. It furthers the convergence of atomised content suggested in the two previous works, *J9* and *Telenesia*, through its use of segmented narrative chunks and through the multi-dimensionality mapped into the navigation screens.

The research journey makes technical and aesthetic explorations into ways in which video can be used in the virtual screen. By developing approaches to the incorporation of the “new” into the “old” and the “old into the “new”, the four works collectively extend the possibilities of video production by combining non-linearity, interactivity and traditional installation practices as means of re-mediating narrative and space.

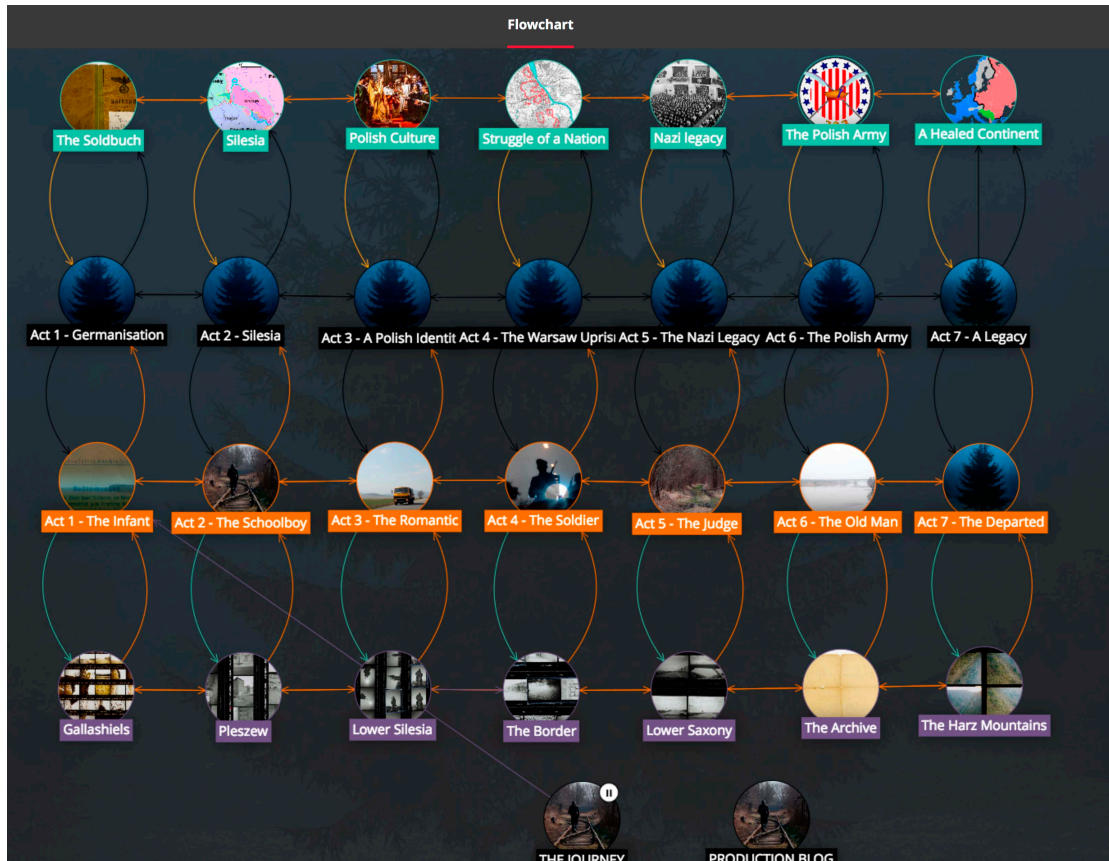


fig. 14 – Flowchart of the multiple screens of *A Polish Journey* depicting the structure of the interactive documentary.

5 Transmedia Productions

The four works demonstrate engagement with a variety of video playback formats and manifestations of the virtual screen. They reflect the transition from a single screen perspective into “the vernacular ‘space’ of the computer screen (that) has more in common with surfaces of cubism – frontality, suppression of depth, overlapping layers” (Friedberg 2009, p. 3). The projects develop immersive and interactive applications that explore how narrative and space can be co-opted creatively in order to generate specific audience experiences such as: looking through a virtual travel window; navigating an island installation of dead media; following the changes over time in the forest environment; revisiting migratory journeys of the Second World War. Taken as a whole, they demonstrate media archaeological engagement with “new media” by appropriating tools and methods across current and historic forms. In the

production of each work, they adopt authorial processes that forefront the audience experience by first asking the question what is the “intended transcendental experience” then use that to guide the technical transmedia manifestations of each project.

5.1 J9

5.1.1 Intended Transcendental Experience

The aim was to create a mediated experience that reflects the inherent similarities of a journey made across a diverse range of global locations. This virtual window on the world combines familiar and more remote places in order to combine the exoticism (e.g. traditional market square in Kathmandu) and ennui (e.g. a generic modern shopping centre) of multiple destinations.

5.1.2 Introduction

J9 has an alphanumeric name, which was chosen to imply processes of computation and, along with them, a mutability of form and function by placing a question mark in the mind of the audience about its meaning. The name is the product of creative machinations that went into the creation of the work: the truncation came from *Journey No 9*, derived from the 9-minute duration of each iteration; childhood memories on living on London’s No 9 bus route, with its seemingly exotic distant destinations emblazoned on the front; and the powerful musical journey of Beethoven’s Ninth which inspired some of the earlier formulations.

Working with sequences that recreate journeys across the world, these “windows” on the world focus on the unfolding of daily life in public spaces. Each location reveals itself in real time for extended shots of 30 to 40 seconds. The editing is minimal and the simple conjunction of imagery facilitates slow and virtual immersion in each space.

Viewpoints are assembled into triptychs – a film technique first attributed to Abel Glances' *Napoleon* (1927) to create a climactic finale, although in this case the technique is employed for a different effect. This use of the three screens allows the viewer to shift attention and discover their own points of interest. The viewer is presented with a series of triptychs that help imply neutrality of viewpoint, and interchangeability that reinforces the intended effect of the piece – a journey is a process that is inherently internal and focused on the everyday. The pulse of the compounded clips works in opposition to the “mash-up” qualities of online computation and is more in line with Tarkovsky's idea that the “dominant, all-powerful factor of the film is rhythm, expressing the course of time within the frame” (Tarkovsky 1989, p. 113).

5.1.3 The Aesthetic of Slow Media

The aesthetic of *J9* follows the lineage of media forms that alter conception of time and attention in a particular way: a quality that can be traced back to Muzak, as a form of background sound of programmed musical loops used in public spaces for emotional effect (e.g. shopping malls, reception areas, foyers, etc.). It has an inherently ambiguous form, one that is open to individual interpretation. As musicologist Ronald M. Radano states: “Muzak is important chiefly because it places the responsibility of making a meaningful experience in the hands of the listener” (Radano 1989, p. 449).

The intended audience effect is for the viewer to engage with a sense of slowed-down screen time, and to experience the audiovisual sequences in a way that pushes the viewers' attention through the “window” (Freiberg 2009) of the screen. This kind of viewing also evokes the physical sensation of movement, a process described by Hockley in *Somatic Cinema* (2013), where he explores the physiological and psychological elements of cinema. The camera in *J9* focuses on and opens up the small movements of everyday life such that the audience can be drawn toward the subjects within the frame.



fig. 15 – A page from the *J9* catalogue showing a sequence of frames featuring a couple sitting on a bench in a Beijing shopping centre.

This is a slowing of time both in terms of the content of the frame and the duration of shots. “Slowness” is an inverse of the attention-grabbing aesthetic of new media and the accelerated pace of much of contemporary video content, both online and broadcast. This idea of a slow media “genre” incorporates understandings from two perspectives: first it has currency as a journalistic terminology in response to Slow TV and, second as a critical term within film studies as Slow Film. Rauch (2011) provides an overview that draws the various elements of the Slow together (Slow Food, Slow Media) suggesting a counter-cultural moment driven by values of sustainability. Meanwhile, Elsaesser (2012) draws parallels between the stylistic aspects of Slow Film and the influence of the gallery and museum as an exhibition space for film, suggesting “the aural *silenzio* of the museum’s ambient galleries, conveyed in measured pace and the stillness of the image, would return us to an inner-space that is both womb and refuge, both protest against and a retreat from a world” (Elsaesser 2012, p.117)

Slow TV has gained traction in the past few years, with BBC and Norway’s NBC broadcasting uninterrupted train journeys and real-time documentary craft

processes – a ‘revolution’ in programming described in *Slow TV is Here* (Heller 2014). This is paralleled with the identification of a “Slow Cinema”, attributed to the 2010 Sight and Sound description of films that would “highlight the viewing process itself as a real-time experience in which, ideally, you become acutely aware of every minute, every second spent watching” (Romney 2010, p.43). There is a precedent with this aesthetic of artists’ films of the 1960s and 1970s and in particular the interpretations of time within the films of Warhol such as the long take. Gidal (1976) remarks that the “absence of some universal clock, though for lack of a more precise definition ‘real time’ did serve its purpose for [...] much of Warhol’s filmwork” (Gidal 1976, p.10).

Flanagan’s doctoral thesis *‘Slow Cinema’: Temporality and Style in Contemporary Art and Experimental Film* (2012) offers an insightful entry into the aesthetic of slowness. We are guided into the measurable, such as the definable Average Shot Length or ASL. The ASL is a popular method to evaluate and measure the “slowness” of a film – a quantitative analysis achieved through dividing a given film’s duration by its overall number of shots. *J9* has an ASL averaging at 45 seconds.

This shot length facilitates contemplation on the part of the audience as it shifts the relationship with what is on the screen: there is a transition from the screen as a representational device to an artefact that induces a ‘direct experience’ (Dorsky 2005, p. 44). In *Devotional Cinema* (2005), Dorsky describes his approach of creating space within the film as a means to expand the potential of subjectivity on the part of the audience, explaining that he endeavours to “trust the viewer to participate and make the connections. It enlivens the viewer rather than just treating them as an object” (Dorsky 2012). The sequencing of long window-like shots, the simultaneity of the triptych’s individual videos and the non-verbal soundtrack helps to evoke the Muzak function as “psychologically active [and] carefully designed to remain below the threshold of common attention” (Radano 1989, p. 450).

These two approaches to time-based media, namely the extended shot length used to evoke a more direct experience of the represented environment and the inflections of Muzak’s approach of working below conscious attention, are used to expand audience interpretation of the screen.



fig. 16 – Triptych still from *J9* of Kathmandu Durbar Square showing market traders working and watching the world around them.

5.1.4 Mechanism

J9 is a database film; it uses the language and techniques of generative art by incorporating looping and repetitive structures that are part of the computational video aesthetic. Manovich observes, “cinema already exists right at the intersection between database and narrative. We can think of all the material accumulated during shooting as forming a database [...] the editor constructs a film narrative out of this database” (Manovich 2001, p. 237).

J9 incorporates a web-based programming structure that replays multiple variants of content within a common structure. The implementation of “database narrative” (Manovich 2001, p. 314) filmmaking is integral to the work and its meaning; its computability is a response to the multiplicity of human experience. This reflects Manovich’s argument for the media specificity of the database narrative, underlining that “regardless of how often we repeat in public that the modernist notion of medium specificity (“every medium should develop its own unique language”) is obsolete, we do expect computer narratives to showcase new aesthetic possibilities that did not exist before digital computers” (Manovich 2001, p. 237).

The *J9* “narrative engine” (Manovich 2001, p. 314) develops two key areas in the relationship between narrative and the screen. Firstly, the software structure explores the depth of what may be termed as a vertical axis of storytelling that can be seen as almost literally a parallel universe²⁸. Additionally, the development of the content of *J9* is aligned with generative ambient video – a field of creative practice that is effectively summarised as a “nascent field of computational creativity [...] populated by psychologists, art theorists, cognitive scientists, artificial intelligence researchers, machine learning specialists, and [...] artists it [...] has been, a fertile creative domain for artists exploring new avenues of production” (Bizzocchi et al 2014, p. 61).

5.1.5 Structuring Experience - Where’s the Story?

J9 explores the links between archetypal narrative structure and the organisation of video database – the very link between storage and story expressed by Elsaesser when he suggests that “narrative has been mankind’s privileged storage mode for 5,000 years, modeling itself on the human experience of time as a succession of sequenced events” (Elsaesser 2016, p. 63).

The organization of material and its 11-act structure stems from the “Hero’s Journey” developed in Campbell’s ‘The Hero with a Thousand Faces’ (1949). This development of a taxonomy of form within myths and stories having been initially undertaken in Propp’s (1968) study *Morphology of the Folk Tale* in 1928. Writer and educator Bryan Alexander summarises this archetype in relation to new media stating: “Campbell claimed to have identified a monomyth of a hero’s journey, an ur-tale or Jungian archetype with deep, regular underpinnings. The hero is summoned to extraordinary challenge, faces strenuous and even deadly obstacles, overcomes them, and then returns home victoriously” (Alexander 2011, p. 8).

The database narrative is, therefore, used to playback a multitude of sequences in the form of playlists that reflect this story such that “the pattern of the Hero’s Journey is universal, occurring in every culture, in every time. It is infinitely varied as the human race itself and yet its basic form remains constant.” (Vogler

1999, p. 14). The use of this narrative shape in the construction of the audio-visual sequences places the audience within a series of environments that transport them across various global locations. Accompanied by a soundtrack that reflects the emotional tones of the archetypal hero's journey, the audience looks into these different worlds as they sit and observe daily life from train windows and a range of viewpoints.

5.1.6 Transmedia Incarnations

The central element of the work, the website, formed the basis for the material presented in the exhibition at Greenham Arts in 2009 and has been configured for both slow and fast Internet connections through an HD option.



fig. 17 – Installation of *J9* at Greenham Arts (2009).

The catalogue (printed and available as PDF through the website) explores the theme of the journey and through a series of commissioned contributions presents viewpoints from the psychology of travel and otherness, cultural memory and tourism, creating travel fiction, and the contexts of place in media

art practice. The design of the catalogue also included visualisations of the database and a series of thematic quotes.

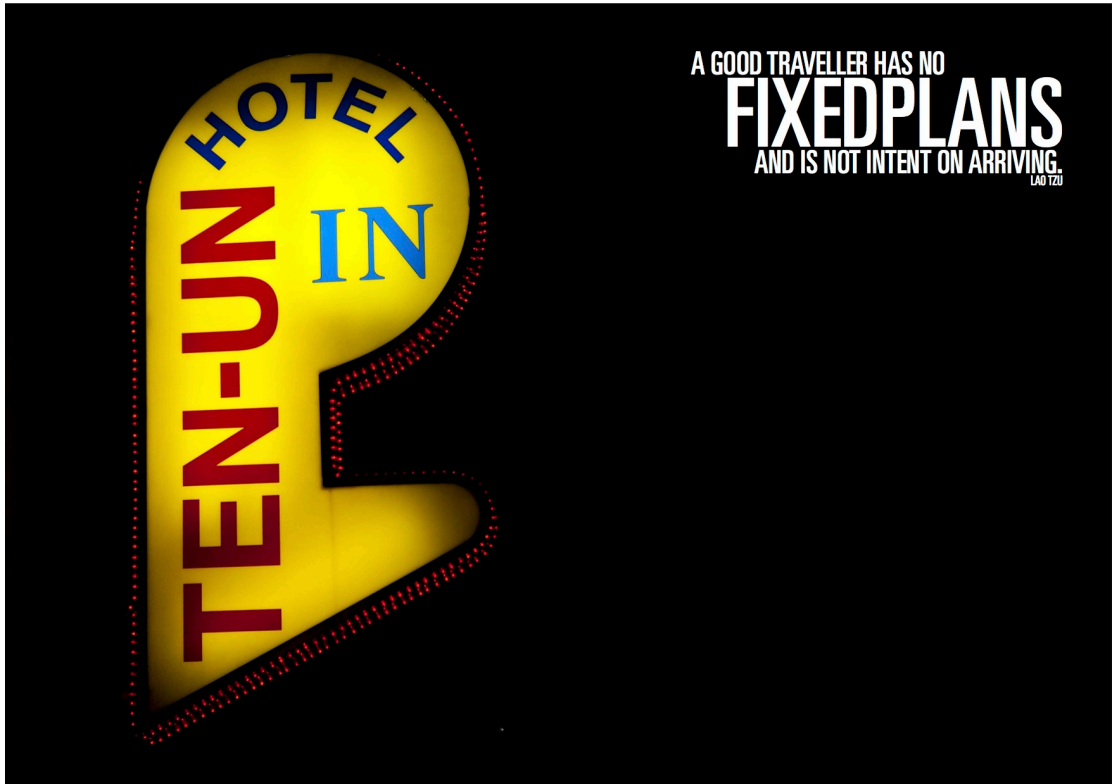


fig. 18 – Page from the *J9* Catalogue.

The work has been exhibited in kiosk form at Festival De Arte Digital Brazil (2009) and Without Borders (2009) Maine USA and screened as a linear film at a number of venues including FILE in Sao Paulo Brazil (2009).

5.2 *Telenesia*

5.2.1 Intended Transcendental Experience

The audience is immersed in an island of broken and haunted media, a world where form becomes barely discernable against formless noise; accordingly, the organising mind expands and reforms as it struggles to engage with archetypes of meaning. The audience is kept in a perceptual limbo where fragmented film clips appear as apparitions and ghostly afterimages within old technological devices as an embodiment of phantasmagoria.

5.2.2 Introduction

Telenesia is an installation with a corresponding online presence. Its name refers to a fictional place and is a combination of two Greek words: “tele-” “meaning far away and “-nesia” meaning island. In addition to this literal translation, the name also connotes television and telepathy both of which underlie the work.

The project examines how potentially ambiguous interactive kiosk screens, that require user engagement to discover content from visual noise interference, can evoke contemplation and activation of cultural memory and re-model the narrative tropes of expanded and experimental cinema within digital art.

Central to the exhibition are a series of exhibits that allow the user to interact with content using analogue controls programmed to mimic the unstable nature of CRT (Cathode Ray Tube) technology. By “discovering” imagery from a sea of static, this interaction evokes the visual and auditory distortions of analogue media.

5.2.3 The Aesthetic of Spectral Media

The installation draws on two key inspirations: experimental film and spectral aspects of media, such as the early Derek Jarman Super 8 film *In the Shadow of the Sun* (Jarman 1981) and the William Burroughs and Bryon Gysin film experiment *The Cut Ups* (Balch 1966).

Experimental film is “less concerned with action than reaction; it is a cinema of psychological effects in search of their causes” (Bordwell 1979, p. 58). The experience of watching an experimental film is a form of engagement that is “generally open ended and offer[s] questions rather than answers [...] the viewer is free to inject him- or herself more fully into the process” (Young 2009, p. 9). Anna Powell describes the experience of watching a film by Stan Brakhage – a key figure in the experimental film canon - in *Altered States* (2012) by noting that “viewing involves much more than the eye as a mere machine for optical processing [...] the viewer encounters them corporeally as well as conceptually” (Powell 212, p. 100). The genre of experimental film used in *Telenesia* adopts these processes; it intends to affect the mind and the body and open the audience to the hidden – the “occult”.

The perceptual disruption and subsequent reconfiguration of media was explored by William Burroughs and Bryon Gysin in their work *The Third Mind* (1978), where they used their experimental approaches to writing in order to explore a manifesto for altered consciousness. One of their legacies was the Dreamachine which was a visual device designed to be “looked at” with the eyes closed in order to induce visual hallucinations: “The Dreamachine deserves a place in the history of media archaeological art, because it belongs to a tradition running from the “natural magic” of 17th-century Jesuits to kaleidoscopes [...] quack machines for healing with light.” (Huhtamo 2016, p. 77). *Telenesia* incorporated a new version of this device designed to resemble flames as opposed to the arabesques of the 1950s original. It was filmed at various speeds with multiple filters repeatedly exposed onto 16mm film.

The use of flicker is a trope from experimental film that formed the basis for the flash cuts of *The Cut Ups* (Balch 1966) and was the basis of the aforementioned Dreamachine. These psychoactive properties of flicker are also assimilated into the kinetic cinematography of mainstream cinematography. Theodore Roszak’s

dystopian conspiracy thriller *Flicker* (1991) plays with these ideas by fictionalising a religious order who use this arcane knowledge to propagandise their messianic messages. The book describes the evolution of technology that the secret organization uses in almost media archaeological terms, and the narrative follows their activities from the magic lantern to the videotape with the protagonist eventually exiled on an island – a formative idea in the development of *Telenesia*.

The link between the “occult” and media, or the interpretation of media as possessing spectral properties, has an enduring tradition, and Elsaesser describes this interrelationship by noting that “...mechanical reproduction also gave rise to what has been called ‘haunted media’: extremely popular para- and pata- physical experiments that accompanied the discovery of electricity, electro-acoustics and especially electro-magnetic field and radio waves.” (Elsaesser 2016, p. 194). In *Haunted Media* (2000), academic researcher, Jeffrey Sconce points out an overlap of interest in science and the occult. He states: “ego, energy, and the “occult” held great fascination for a variety of thinkers at the turn of the century, drawing together not only avowed “psychic researchers” but physicists, neurologists, physicians, and other prominent men of science” (Sconce 2000, p. 72).

5.2.4 Mechanism

The “physical computing” sculptures were boxes that allowed the visitor to access and play with a database of short video clips using analogue controls in the form of dials and knobs. These sculptures involved creating bespoke MAX/msp software patches and Arduino boards to replicate the tuning dial of analogue receivers. The five boxes formed part of an “island” of detritus in the middle of the exhibition space, with one wall filled with a computer-generated image of a sun poised to set over a 3D rendered seascape. The gallery was filled with the ebbing and flowing of white noise.



fig. 19 – The interactive kiosks created for the *Telenesia* installation.

5.2.5 Structuring Experience - Out of Noise

The film fragments accessible via the interactive kiosks were created on the basis of two key ideas. First to derive a visual aesthetic combining the visual tropes of found film such as dust, scratches, mismatched speeds and double exposures, cut-up narrative and textural elements of 20th century experimental film. Second, the sequence of the films represents a journey through the Major Arcana of the Tarot²⁹ card deck, chosen due to the rich use of archetypes and symbolism and their use by occultists. The Tarot has a tradition as a tool for divination as well as taking the form of a symbolic movement of an individual on a quest. The *Telenesia* films are ordered in this manner and the accompanying website structure complements this by presenting film segments thematically and also facilitating a random Tarot card choice.

The 22 films are edited using imagery inspired by these archetypes (The Fool, The Magician, and so on) with the pacing of edit and music endeavouring to reflect the inherent narrative associations. The fragments made use of the visual

ambiguity of low-resolution media, with multiple exposures created in camera incorporated with the intention to maintain an analogue look. Creating these looks digitally meant adhering to simple cuts and additive dissolves – maintaining an appearance that could seamlessly appear from a sea of visual noise and fuzz.



fig. 20 – Filmstrips from *Telenesia* short films illustrating an analogue aesthetic of film grain, scratches and blurred motion.

5.2.6 Transmedia Incarnations

Telenesia encompassed a number of media art forms from interactive installation to curation. The project makes reference to the history of experimental film and this is reflected in the works that were also chosen for the gallery presentation at Quay Arts in 2011. The exhibition included work by artists who explore the materiality of the moving image: Ian Helliwell who works on scratching and painting celluloid; Rosa Menkman, a video ‘glitch artist’; and Anders Weberg, a filmmaker whose ephemeral video works are designed to “disappear” into sharing networks. The thematic elements were extended in the web-based Scoop It page.

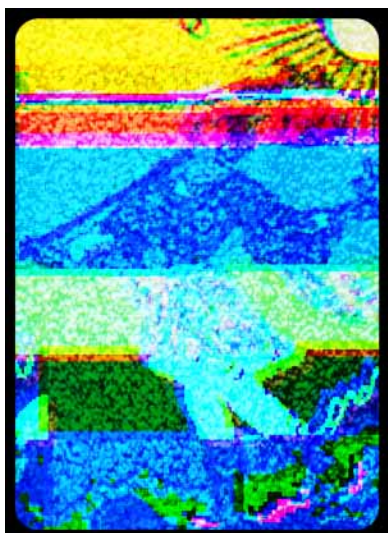


fig. 21 – Image of the Fool from traditional Tarot cards after being deliberately degraded using “glitch” processes.

The catalogue is a boxed multi-format piece including a set of glitch Tarot cards along with a more conventional exhibition booklet, and it is also electronically rendered as a PDF document. It includes writings on media archaeology by Dr. Jussi Parikka, philosophy by Dr. Graham Coulter-Smith and art criticism by Dr. Joanne Lee. The design is inspired by the techniques of glitch art and incorporates the aesthetic of the analogue database (hand-typed forms) with the production including re-photographed and scanned hand-created imagery.



fig. 22 – *Telenesia* printed catalogue.

The 22 short films have been screened at One Minute Film & Video Festival in Switzerland (2010 & 2012).

5.3 *The Interactive Forest*

5.3.1 Intended Transcendental Experience

The aim was to facilitate an audio-visual immersion in multiple virtual screens to evoke a sense of presence in the mediated landscape of an archetypal forest.

5.3.2 Introduction

The Interactive Forest combines a range of virtual representations of a forest. Filmed and photographed within the confines of the New Forest in Hampshire, UK, the work explores the generic idea of “forest” while also mapping the specific geographical filming locations.

This exhibition and website develops audience engagement with the landscape through spectacle, presence and locating an image of the body onto a virtual space via an installation that maps the audience onto a textured animation. It examines ways in which the gallery space and online screens allow the audience to experience the temporal and spatial elements of the natural world. This is achieved using a range of mechanisms (5.3.4 Mechanism) such as sitting or walking through a partial video cube with multi-channel audio playback and the visitor using their silhouette to drive an abstract animation sequence of images along a path. This is a distinctive approach because it enables the audience to engage, using novel configurations of generic technologies, with the themes of the work in modalities that range from the visually impressionistic to the documentation of seasonal change and geographic location.

The work also evokes the historical and cultural connotations of the land and makes particular reference to the expansion of interest in the forest as a Victorian leisure spot. This romanticisation of the natural environment formed the basis for the printed catalogue and elements of the online archive in the use of font and framing flourishes.

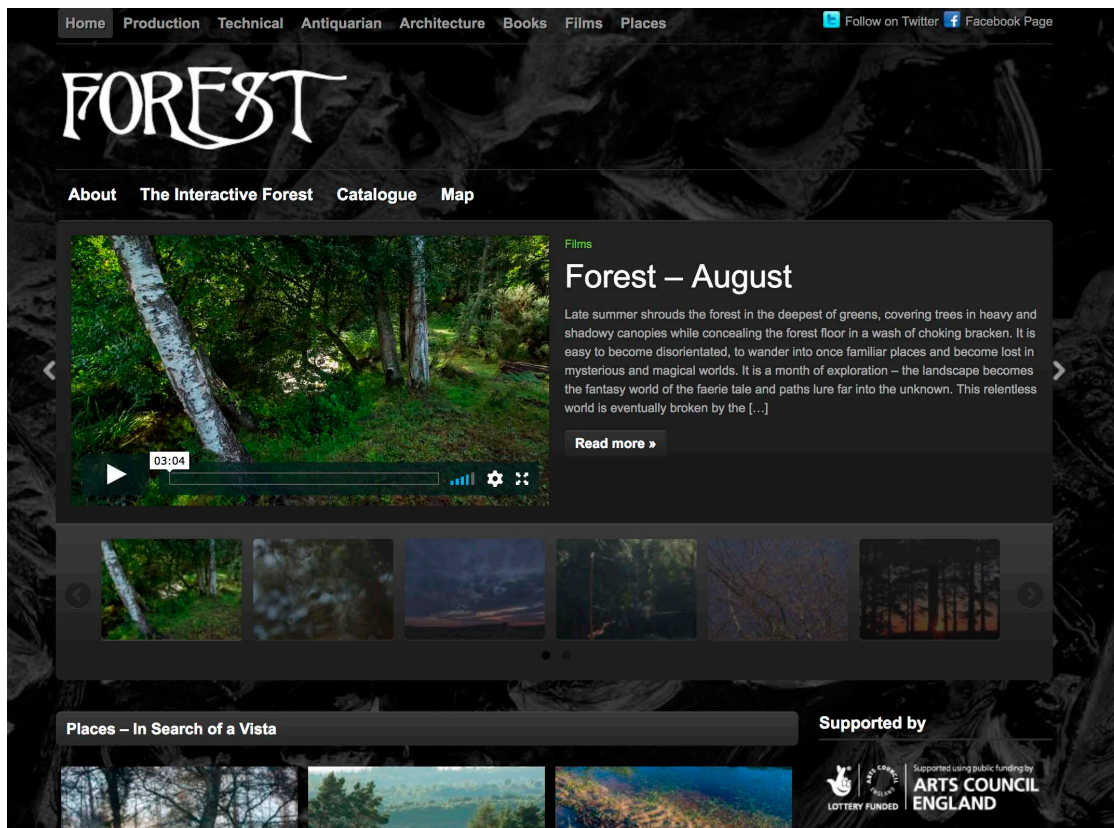


fig. 23 – The website for *The Interactive Forest*.

5.3.3 The Aesthetic of Presence and Immersion

The Interactive Forest extends two key themes: the totality of immersion in a mediated environment, and the ability to facilitate a sense of presence for the audience.

The idea of expanded cinema gestated in the 1960s and was rooted in creating multi-screen immersive experiences that found expression in both alternative art forms, discussed in *Expanded Cinema* (Youngblood 1970), and state-funded international exhibition formats (Charles and Ray Eames *Glimpses of the USA* 1959 Moscow World's Fair auditorium). The underlying intention was that “the screen [...] exploded and multiplied, either through division into multiple images using split-screen techniques or by placing screens on several different walls.” (Weibel 2003, p. 112).

The ideas that drove multi-screen storytelling are necessarily phenomenological in nature, given that the medium is used as more of a psychological tool. As Youngblood argues, “Expanded cinema isn’t a movie at all: like life, it’s a process of becoming, man’s ongoing historical drive to manifest his consciousness outside of his mind, in front of his eyes (Youngblood, 1970, p. 42). This intention to reflect our perceptual ruptures within multi-screen work extends into contemporary practice. Such intentions are described by the filmmaker Doug Aitken in *Broken Screen* (2005), who states: “the experience of non-linearity and fragmentation is with us all the time. They are sometimes seen as dangerous and are often associated with chaos. But in many ways, they’re truer to reality” (2005, p. 8)

The idea of presence is a transcendent state of immersion whereby the audience experiences a sense of non-mediation and a form of total engagement. VR researcher Dr Matthew Lombard’s *At the Heart of It All: The Concept of Presence* (1997) provides a topology of the variants of presence, starting with the pre-technological and the “oral tradition of early humans [that] involved the telling of tales that transported each generation of listeners to a different time and place where the events occurred” (Lombard 1997, p. 5). While attention has been paid to the creation of presence using new media technologies, this also has applicability in terms of basic variants such as screen size. As Lombard also points out, “consumer preferences for televisions with larger screens ... suggest that television viewers will increasingly be able to experience presence in their own homes.” (Lombard 2000, p. 94). The approach of *The Interactive Forest* is to take the landscape and to create a transmedia experience where ““you are there,” in which the user is transported to another place” (Lombard 1997, p. 5)



fig. 24 – *The Interactive Forest* exhibition at Solent Showcase 2015.

5.3.4 Mechanism

The Interactive Forest incorporates three main technological forms in order to create virtual screens. These work in gallery exhibition spaces and the website with content (re)mediated across platforms. The forms are the immersive cube, the reactive screen and the interactive map.

Firstly, the 'Forest Seasons' immersive cube uses three right-angled screens and multi-point audio to create an immersive audiovisual environment. The screens display a video triptych split across three video projectors using material shot to evoke a high level of representational realism in terms of colour accuracy. At the same time, they incorporate cinematographic movement to create rhythm and pace. The three screens were designed and composited such that the central screen is the focus of the viewer's attention, and the surrounding screens are slower-paced and directed toward peripheral vision. The audio was mixed using second-order ambisonic decoders (Horsburgh 2015) and spatialised in X, Y and Z space, so that specific natural sounds were given

appropriate height placement. The 45-minute video was distributed on the website as a series of 4-5 minute single-screen stereo clips.



fig. 25 – The immersive environment for the *Forest Seasons* video triptych.

Secondly, the reactive screen uses a Kinect sensor to extract a 3D impression of the audience within the space and uses this to dynamically create a “shadow” on the layers of video projected on the screen. The bespoke software patch translated the data into video using MAX/Msp and Jitter running from a single Mac Mini, and a video projector. The video file, which was also published on the website, was comprised of “impressionistic” layered imagery of paths and trees designed to give a sense of slow, almost static looping motion through the forest landscape.

Finally, the interactive map focuses on the specificity of the New Forest – its history, names, geography and landscape. The map, which uses the Googlemaps API, provides access to a database of approximately 500 images. These photographs document walks that formed part of the research into film locations, and are published as *In Search of a Vista*, with the database structured around generic criteria such as seasons as well as classification around specific local names.

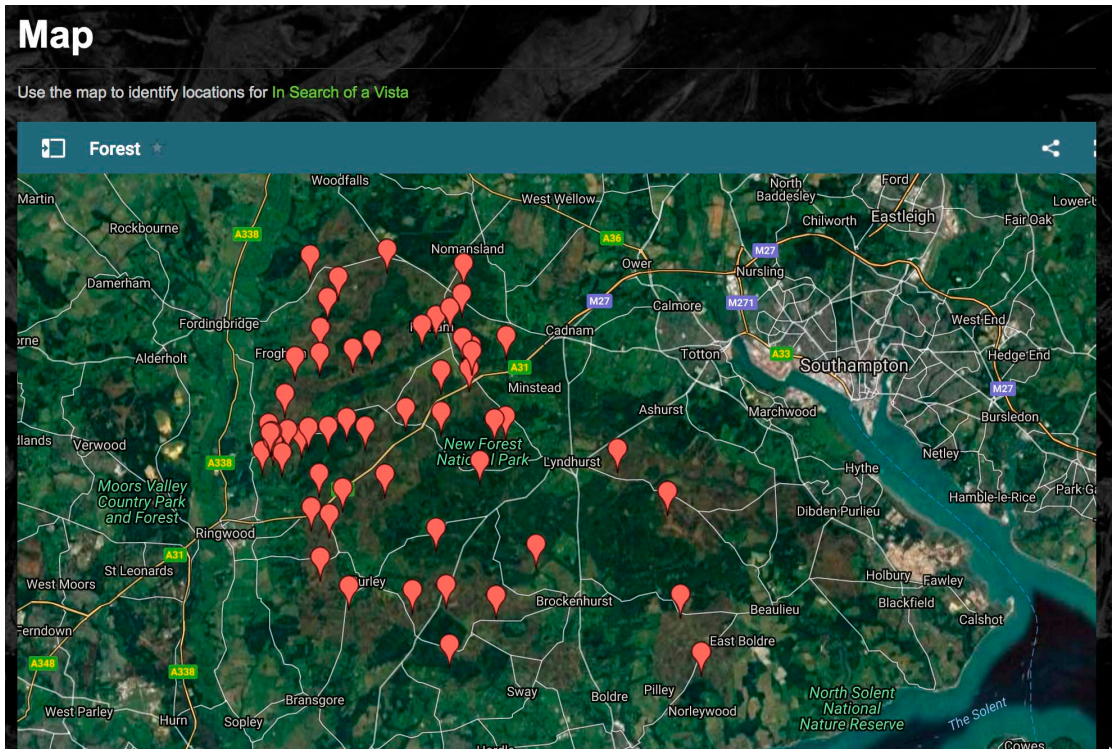


fig. 26 – The embedded Googlemaps API used as a means to explore the database of photographs on the website.

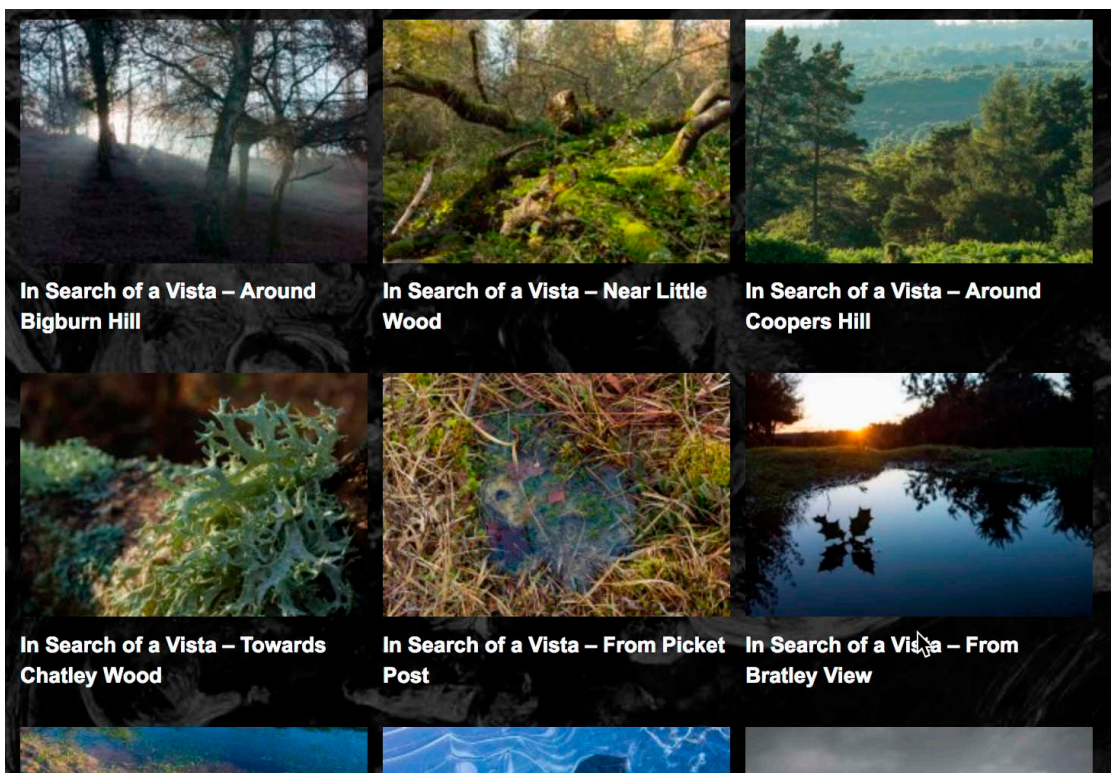


fig. 27 – Searchable database of still photographs from *The Interactive Forest* website.

5.3.5 Structuring Experience - A Time and a Place

The contrasting ways in which time and space are represented within the virtual screens of *The Interactive Forest* suggest a range of interpretations of the landscape. The immersive cube is a film loop that uses imagery to reflect the changing seasons of the year and is structured around musical segments of Vivaldi's *Four Seasons*. The twelve movements of the original composition are interpreted as months, with each one evoking a different rhythm or emotion. Furthermore, the soundtrack formed the basis for a musical collaboration with musician Natalia Kulabuchova, who incorporated a re-working of the original score using electronic instrumentation and field recordings. The representation of time is the product of a romantic and picturesque rendering of the landscape. This lies in contrast to the less sharply defined imagery of the reactive screen, where time is manipulated in order to become almost static: the frames loop through layers of afterimage so that we appear to remain in the same place – the time of memory.

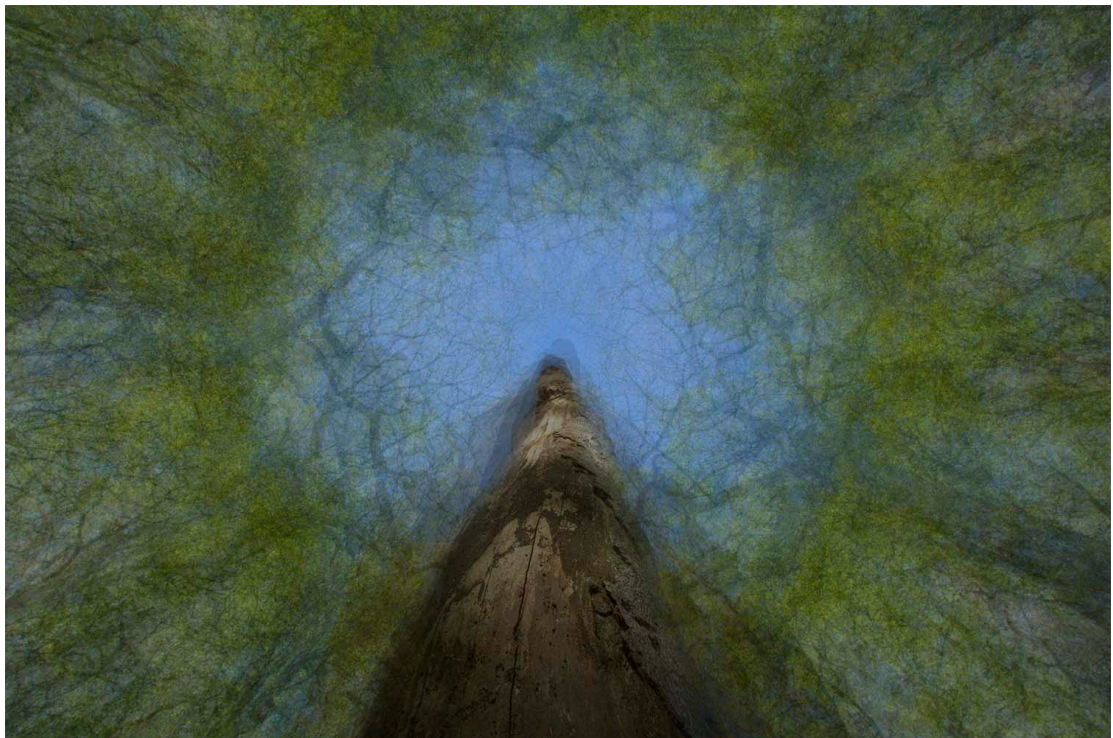


fig. 28 – A still from the animated texture loop used as a responsive background.

5.3.6 Transmedia Incarnations

The two main gallery exhibitions involved re-configuring the key exhibits in terms of scale, according to the exhibition space, with the printed catalogue and website remaining a consistent reference point for audiences. The work was initially exhibited at the New Forest Center Gallery (2013) with a more extensive implementation at Solent Showcase (2015).

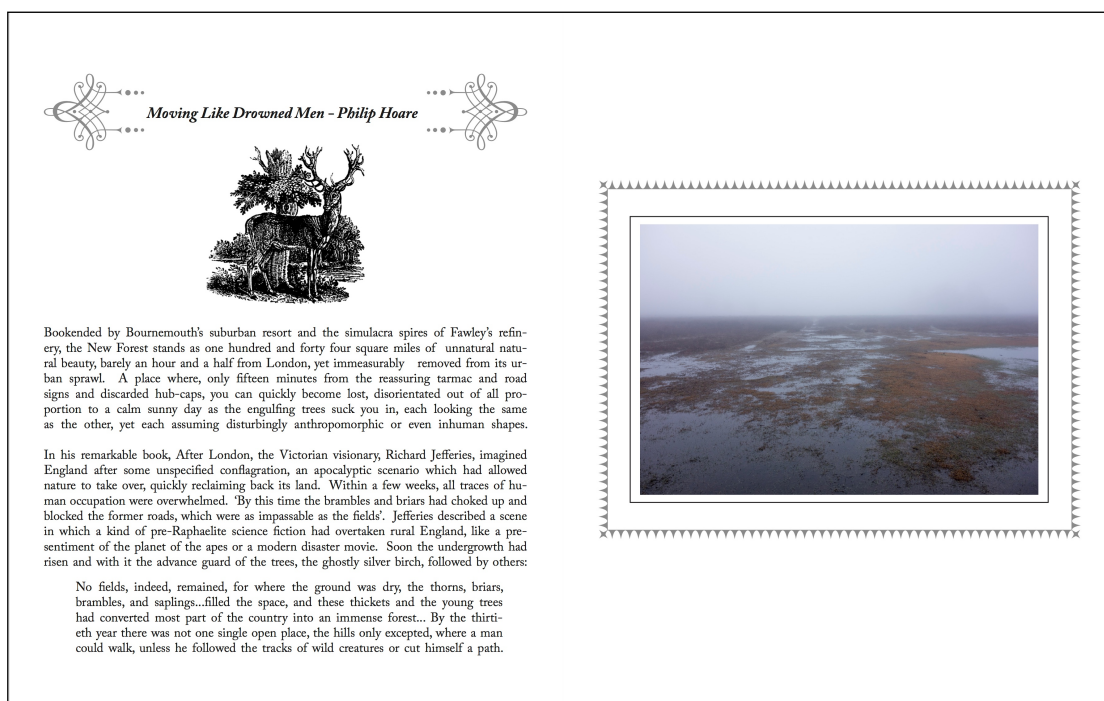


fig. 29 – Page from *The Interactive Forest* catalogue.

The catalogue included a commissioned essay by the writer Philip Hoare³⁰ and was designed to visually evoke the antiquarian texts³¹ that had formed the basis for some of the research into the project. The exploration of an archive of texts and maps involved re-photographing these artefacts with the resulting imagery being curated into a group exhibition themed around the cultural history of the forest - Time, the deer, is in the wood Hallaig, St John on Bethnal Green, London (2013).

The single-screen short film segments (titled by the month) have been selected for screening at the film festival FONLAD Film and Digital Art Festival Portugal (2013) and included in international media art blogs such as Ecoarte (2013). The reactive screen was presented at DHRA Digital Research in the Humanities and Arts London (2014), and the Forest Seasons was presented as a single-screen loop at the New Forest Arts Festival New Milton Arts Centre (2016).

5.4 *A Polish Journey*

5.4.2 Intended Transcendental Experience

Creating a sense of time and history moving back and forth, with sedimentary layers of interpretation taking the audience into the cyclical nature of overlapping generations: by following the protagonists' migratory journeys the work evokes empathy and connection with their own personal family history.

5.4.1 Introduction

The title of *A Polish Journey* was chosen to reflect both the wide scope of the work and connote a sense of individuality by suggesting it may be one of many such journeys. The interactive documentary project uses the virtual online screen to present narrative, with the developmental work focusing on the iPad. The device was chosen as it met a number of criteria: it offered the immersive quality of high-quality video and audio, it is functionally placed between the lean forward/lean back experiences while allowing the user to fluidly move between them, and it offers a tactile interface through the swipe navigation with the corresponding interface providing freedom of navigation.

A Polish Journey develops storytelling structure to communicate a story of refugee migration and political conflict. It focuses on the personal and the political in order to challenge the inherently artificial nature of political boundaries and the potentially de-humanizing effect of the nation-state.

The project engages with the representation of time and space within the virtual screen by narrating events across continents and timeframes such that the story is woven together from a range of voices. The road trip that forms the basis for the storytelling uses the landscape as a cue for unlocking memories and political histories around the role of Polish nationals during World War Two.

5.4.3 The Aesthetic of the Archive

In bringing together the personal account and the historical perspective, *A Polish Journey* incorporates a range of “voices” and points of view, with the visual and audio elements reflecting this. Both the video and interactive elements are designed to evoke different periods of history with respect to the two main journeys: the 1940’s journey of the filmmaker’s grandfather, Zbigniew Konczak, from Poland to Germany and then the UK, and the retracing of the steps by the filmmaker and his son in 2013.

The project is located in one resource (the website) and uses interactive design techniques to create a series of virtual screens that map time and space so that transmedia or multi-platform elements become contained within a single piece.

The archive is integrated into the narrative, with official documents and personal artefacts forming key elements of the dramaturgy as well as being available for closer inspection within the interface. The video content makes use of a variety of film aesthetics to denote different time frames, and these make reference to both the individual family archive and to generic footage from the public domain (available on the repository of free and open source media archive.org). The look of the video brings the two together, whereby the specific documentation of the central character is combined with generic World War Two archival footage as indicated in the example below.

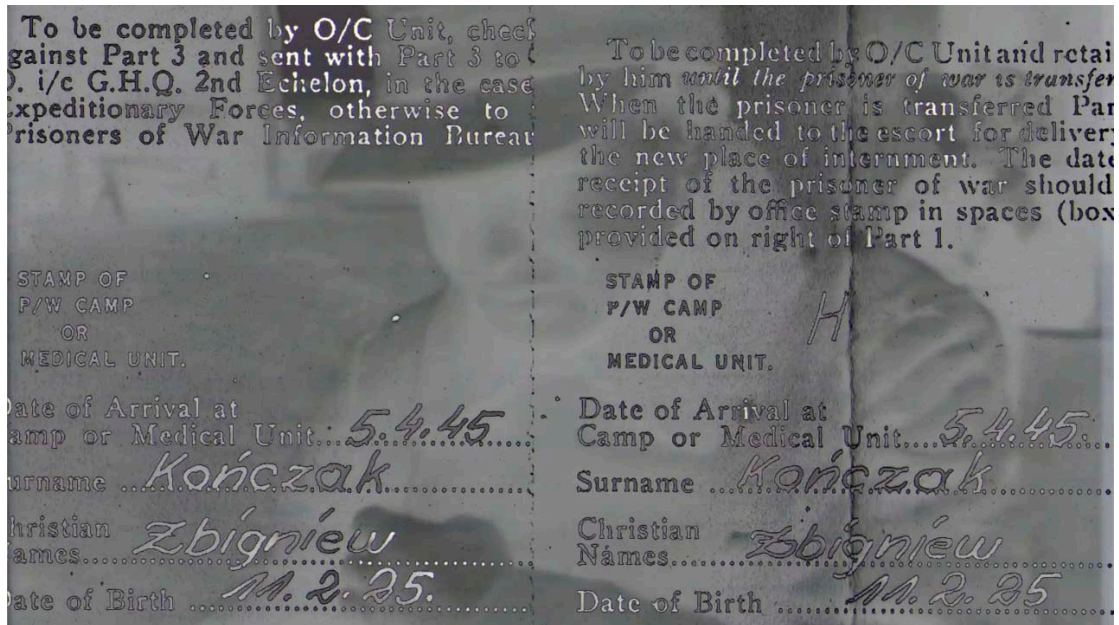


fig. 30 – Still frame from *A Polish Journey* showing the use of archive material.

Extended slow dissolves and overlays that take place over complete shots are used to combine material and evoke shifting time frames. The film also includes other techniques such as desaturation to suggest old media. Photography and rostrum camera effects are used on photographs from the 1930s. Production images shot on film are included in a journal section of scanned negatives, with sprocket holes and other evocative details.



fig. 31 – Page from *A Polish Journey* interface showing the use of production photo journal.

The soundtrack is used to expand and underscore the time shifts, ultimately becoming one of the key elements across the production, with piano recordings inspired by Polish composer Chopin recorded prior to principal photography (performed by Jeremy Avis). Along with the complete Chopin composition, *Préludes, Op.28 No.15 in D flat (Raindrop)*, a series of improvisations were developed that reflect the intended seven ages/seven acts structure. The voices recorded at post-production stage followed two key strands: the filmmaker's narration of the contemporary journey, and the voice of the grandfather as a young man making his way across Europe during World War Two (performed by Adam Wittek). Other narrative voices used included German military personnel reading details from the *Soldbuch* (German army passbook), readings of German poet Heinrich Heine and the Polish poet Adam Mickiewicz (also performed by Adam Wittek).

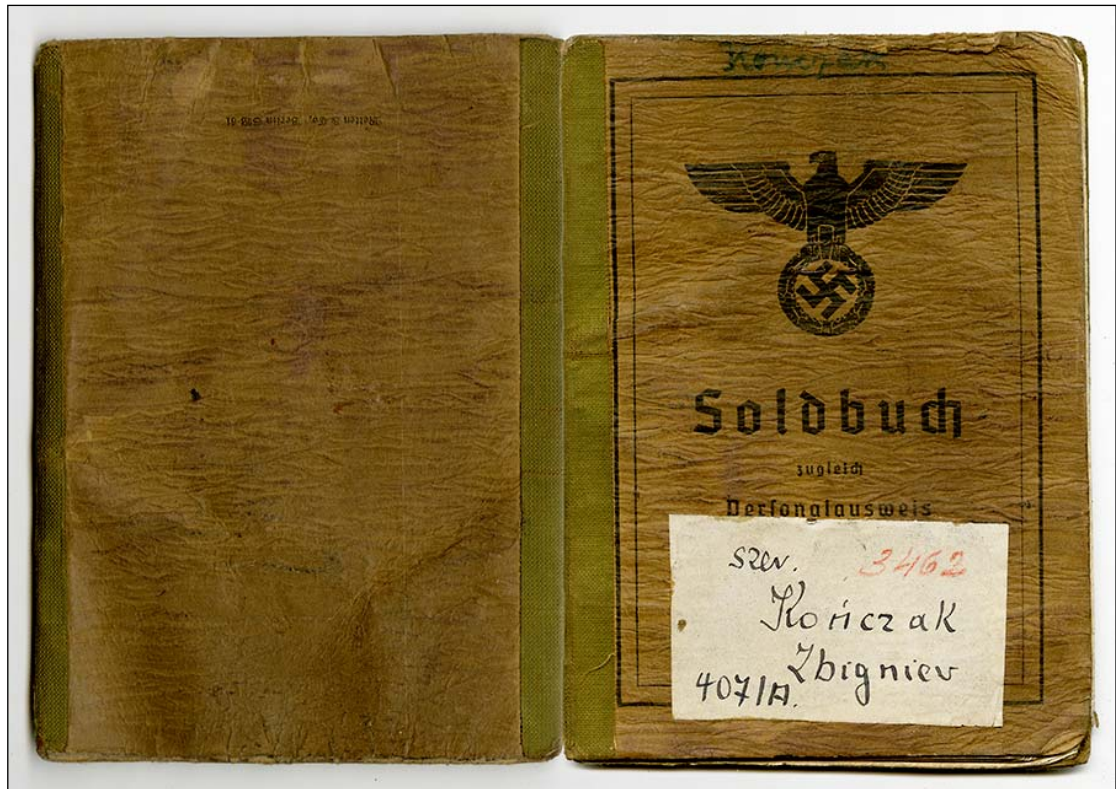


fig. 32 – Page from *A Polish Journey* interface showing the German army passbook that underlies the narrative of the film.

5.4.4 Mechanism

A Polish Journey develops a method of storytelling whereby narrative is optimized for longer form, while also being structured for the modular short form conventions of online video. The challenge was to communicate rich and complex stories while maintaining an offering that could be consumed in smaller parts. The work uses an episodic structure that enables the story to be communicated through a series of 4-minute sections, with each act being self-contained.

A Polish Journey uses the tools of the interactive documentary to develop stories about migration and incorporates maps, hypertext and video to create a narrative that is both individual and shared. These shifting timeframes can be viewed as a 30-minute linear documentary.

The segmented film at the centre of the project allows the story to be navigated vertically as well as horizontally, offering the audience a sense of discovery across present and the past.

5.4.5 Structuring Experience - Deep Time of the Journey

The film's seven-act structure mirrors the seven ages of man. This narrative device unfolds through three timeframes: the shape of the contemporary journey made by the filmmaker to retrace the past; the life of the film's subject (the deceased parent); and the history of central Europe during the 20th century.

Each of the seven ages has a musical motif that is used to unify and strengthen the integration of the vertical structure of the presentation. Moreover, each act incorporates a journal of the contemporary journey, historical information and links to further web resources. By accessing the story vertically, the audience is able to discover additional elements regarding the different layers of the narrative as well as broader contexts.

The film script was written to reflect these layers and is a juxtaposition of viewpoints that combine to create a greater whole. The writing involved a combination of historical research with a creative interpolation. The narration of the deceased grandfather's journey is historically accurate, though creatively inspired by the many published first-person accounts of WW2 displacement such as Wojciechowska's *Waiting to be Heard* (2009)³².

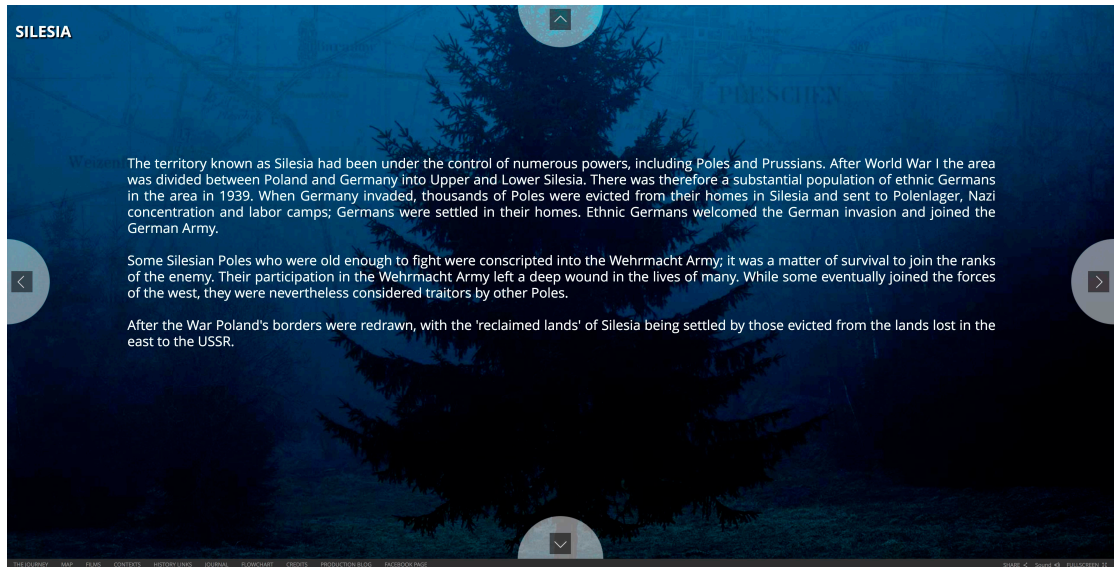


fig. 33 – Page from *A Polish Journey* interface showing historical contexts contributed by Bogusia Wojciechowska.

The deep structure of *A Polish Journey* facilitates audience engagement with enduring and archetypal themes of humanity: migration, loss, identity, and family. The breadth of entry points into the narrative allows each audience experience to be differentiated, while still facilitating a coherent and meaningful connection with the core narrative.



fig. 34 – Film segment embedded into *A Polish Journey* interface.

5.4.6 Transmedia incarnations

A Polish Journey has been exhibited and presented through the previously described interface, which provides a 'portal' into the narrative content. The audience navigates the breadth of media forms within the containment of one site, which functions as desktop website, an iPad app (via Klynt's proprietary interface) and a kiosk in the exhibition space (installation at Alternate Realities – Interactive Exhibition Sheffield Documentary Festival 2016). The project has been presented at iDocs 2016 and 22nd Bremen International Film Symposium 2017.

6 Conclusion

The transmedia paradigm focuses on the “story world”, a production guideline that aims to confer narrative unity across media platforms by using persistent characters, locations, props, graphics, and/or story. However, evoking coherent audience responses to narrative worlds in the atomised world of multi-platform extends further than audio-visual consistency and involves the creative practitioner pursuing the development of an ‘intended transcendental experience’. The process of working with an internalized understanding of the phenomenology of audience experience is inherent in genre-based single-screen programming, such as thriller, adventure, suspense, and so on. However, as the creative practitioner moves into the more fragmented realms of transmedia production, the nexus of platform convergence lies in an audience experience that has more variables to manage.

The conceptual approach outlined in this thesis argues for a production methodology whereby content within the transmedia environment builds on a sequenced implementation of an intended transcendental experience. This involves generating content and implementing delivery technologies according to the specifics of each project as opposed to conventional narrative production that follows specific genre guidelines. This contribution to knowledge in the area of storytelling within the virtual screen incorporates phenomenological interpretations of experience, which are mapped onto archetypes (*fig. 35*) in the scripting and production of content. The production workflow involves first crystallising the more ephemeral aspects of transmedia audience experience prior to any technological choices: a creative production strategy that retains the intended transcendental experience as the “DNA” as opposed to orientating around technologies of delivery.

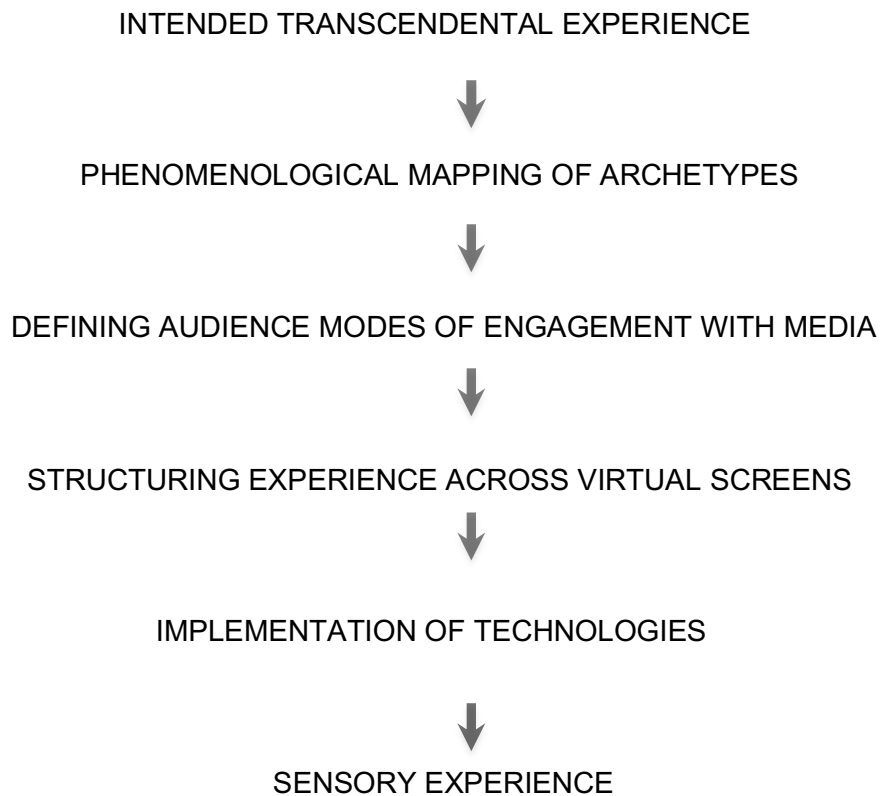


fig. 35 – Diagram of workflow using the intended transcendental effect as a basis for authoring transmedia across the virtual screen.

To summarise the implementation of the six stages, the first uncovering the language of phenomenological experience and system of archetypes that can be evoked in order to create the intended transcendental experience. This is followed by clarification of the perceptual world that would be required and involves configuring the aesthetic and “look and feel” – the mode of engagement. This leads to an understanding of what the nature of audience experience may be on a somatic level – the modes of engagement. The mapping and positioning of the materiality of the body in the experience facilitates the implementation of narrative and space within the virtual screen and leads to structures such as storytelling (scripts or storyboards). The evaluation of tools and technical resources will at this stage be a reflection of the previous four stages, with choice driven by the envisaged effectiveness of media platforms. The final stage of production is the material manifestation in terms of creating and delivering a sensory experience, with the subsequent transmedia project being evaluated and the preceding stages being revised as part of the development process.

A reflection on the implementation of technologies across the projects included in this thesis would suggest that the design principles of *J9*, which used a single web-based interface to create lean forward / back engagement, could have benefitted from the convergence of the iPad – a later technological innovation. This was demonstrated in *A Polish Journey*, which established a suitable convergence platform for bringing these two kinds of viewing experience together, while also allowing text and hypertext interaction. Both of these projects did contain substantial single-screen content, with the range of material that filled a large exhibition space in *J9* becoming contained within a single device in *A Polish Journey*. These projects used established forms of interaction (*J9*, point and click; *A Polish Journey*, point and click, and swiping depending on the device setup), while *Telenesia* recreated an analogue interface, which meant that audiences had to “learn” how to access the content. The requirement to learn the tool as well as interact is potentially problematic, and may well be more effective in an environment that is set up as a digital playground. The strength of the sublimated interaction in *The Interactive Forest* gallery immersive installation meant that the video would play regardless of whether or not the audience had discovered any interactive element.

All of the works explore rich audio-visual immersion, as they embark on taking the audience to new places and other worlds: *J9* is a virtual travel window; *Telenesia* an immersive island created with props, projections and surround sound; *The Interactive Forest* a multi-screen installation that recreates representational and impressionistic imagery of the landscape; and *A Polish Journey* uses a rich layered stereo sound and image within a navigable single screen. This use of audiovisual content to bring together narrative and immersion is paralleled in recently developed work of the Sensory Ethnography Lab at MIT³³ where explorations of documentary presentations have ranged from environmental awareness of waste in *Single Stream* (Lee and Wojtasik 2013) to immersive projects that re-inhabit the cinema space in *Leviathan* (Paravel and Castaing-Taylor 2012). This represents a synergy of interest in moving content and audience experience between types of screen and allowing audience experience to mutate across media platforms.

Post-humanism celebrates the powers of HCI (Human Computer Interaction) and AI (Artificial Intelligence) as inherent technological progression. The resulting knowledge gained by synthesising neuroscience with new

technological platforms provides powerful tools for understanding the perception of media. The language used to describe the effectiveness of these remains phenomenological: “immersion”, “presence” and “empathy” and points toward the transcendental core of human experience: experience that is located beyond particular technological or cultural instances. To author new and yet-unknown platforms that mutate and (re)mediate creative practice will necessarily start from asking what intended transcendental experience will be offered to the audience. As we move from the product demonstration or conceptual phase of new technology to an engagement with the archetypal aspects of human experience this approach becomes increasingly pertinent as there is a danger in simply adopting new technologies without understanding their contextual baggage. The computational video *J9* demonstrates this: the computability is used for a specific effect, as it is chosen to enhance the aesthetic of the work itself, with the generative nature of the algorithmic programming serving the content such that form follows function.

The combination of “old” and “new” media forms developed in *A Polish Journey* expresses this idea by exploring how the intended transcendental experience can be effectively mapped onto an interactive form. Using the linear documentary film form means that the expected phenomenological experiences of the audience are largely given. *A Polish Journey* extends this experience into the spatial and navigational elements of interactive media, allowing the audience to “go deeper” into the story and its structuring of time.

The initial aim of the body of work examined in this thesis was to explore in a practical context how narrative and space can be represented using configurations of the virtual screen by implementing tools, methods and aesthetics from across past and present media. In other words, my aim has been to create transmedia film projects that are contextualized within a broad media archaeological approach. Underlying this objective was an intention to nurture audience experiences that would exist beyond the confines of the presentation technology. The four works demonstrate this implementation by functioning across formats and styles, thus creating a range of intended transcendental experiences: from the ennui of slow film to the empathy and education of the interactive documentary.

The individual works offer novel configurations of the virtual screen, which build on previous work in the field of immersive and interactive implementations of database narrative by developing and creatively reconfiguring technologies. Respectively, extending work on narrative and generative aesthetic (*J9*), implementing the tropes of media archaeology media art into fictive spaces (*Telenesia*), synthesising concepts from expanded cinema and VR into the landscape film (*The Interactive Forest*), and offering fresh approaches to the combining of fragmented web video with longer form film projects (*A Polish Journey*). These contributions are compounded with a novel approach to transmedia production, because they materialize a methodology that, first underscores a practice of opening production possibilities to media past and present and, second binds this cross-platform implementation by envisioning an intended transcendental experience.

Inevitably, the scope of this research was constrained in scale and budget. Firstly, given the expansive possibilities on offer, the projects do not explore all media platforms and, notably, there would be room to extend into social media and user-generated content in order to explore presence as shared social space. Secondly, the recent rekindling of VR through the development of headsets such as the Oculus Rift³⁴ and Object Based audio systems suggest that there may be qualitatively evolved tools included within the transmedia storytelling toolset.

Future research in this area could develop transmedia presentations of the virtual screen that focus on the expansion of the use of audio, mobile computing and shared social spaces. Audio was found to be an integral and powerful tool in enhancing the impact of virtual screen, as it facilitated deeper levels of immersion. The enhanced spatialisation of audio presentation³⁵ has evolved significantly with commonly available technologies able to recreate acoustic immersion. Mobile technology has now developed in the form of a wide range of smart devices and headsets able to track the user's position and use this to give audio-visual feedback that enrich the navigation of virtual 3D environments. These faculties can be explored to further extend the possibilities of a convergent transmedia device. While a virtual environment may be able to map the audiovisual contours of a physical space and mimic the haptics of physical navigation, there still remains the challenge of the social nature of a physical immersive environment, and there is clearly territory to (re)explore³⁶.

¹ Tarkovsky (1989) coins the term “sculpting” with reference to the “sculpting of time” in film. This metaphor is extended to include the positioning of the virtual screen.

² The terminology is a direct reference to structures of narrative distilled by Christopher Vogler in *The Writers Journey* (1999)

³ The term “higher-order” is employed in phenomenal psychology and neuroscience models of consciousness to distinguish between phenomenal consciousness and “first order” processes of sensation and perception.

⁴ USA-based Nam June Paik worked from the 1960s exploring both the sculptural aspects of the TV screen along with closed circuits. Furthermore, David Hall explored the degrading analogue TV image, with Haroon Mizra and John Wynne bringing sculptural explorations of analogue technology into the contemporary art gallery.

⁵ The work within this study is inherently digital, while also adopting hybrid approaches to multi-platform whereby aesthetics and techniques from print and film are incorporated into the projects.

⁶ The phrase “intended transcendental experience” will be used to encapsulate this phenomenological approach and will be examined further from a critical and theoretical perspective.

⁷ For example, UK broadcaster Channel 4’s ongoing commitment to this via the Random Acts schedule, amongst others.

⁸ Audiovisual work produced in the latter part of the 20th century depended on these expensive and less accessible computing technologies to playback video streams. The ubiquitous computing that followed shortly after facilitated corresponding mass-market tools, such as fast graphics cards (GPUs), Recordable DVD – Video and software like Macromedia Director being available in the high street.

⁹ The online delivery of resolution and frame rates comparable to broadcast video was resolved thanks to meeting a number of factors including bandwidth

and codec technologies – YouTube (founded in 2005) became a key platform and has pioneered mass HD, 4K and 360 video sharing on the Internet.

¹⁰ There is a parallel development and a strong relationship with the gaming industry which, facilitated by the elasticity of the CGI medium, creates games that are scripted and designed to offer braided narrative, forked storytelling and character perspective.

¹¹ The varying shades of technological determinism that proceeded from Karl Marx's idea that technological development drives societal and cultural change have come into question from a number of quarters such as Winston's (1996) argument that it is, in fact, culture that defines the dissemination and implementation of technology.

¹² The term "ganzfeld" translates from the German as "complete field", and represents a kind of sensory deprivation whereby there is no discernable form.

¹³ The "archetype" has been developed by theorists such as Levi-Strauss (1987), Propp (1968) and Todorov (1975); however, the focus of this study is on Campbell's model because of its impact on the film structure through the work of Vogler.

¹⁴ The broad definition of suture as a critical concept in film studies is the process with which the subject of the film narrative (the viewer) infers concepts such as consciousness or point of view out of shot sequences. Heath (1981) examines how the term (from the surgical term 'stitch') describes how montage systems 'suture' the viewer into the psychological-narrative space of a film.

¹⁵ Given the range of distribution platforms – from installation to web-based delivery – video content was produced at the highest quality for the installation, with lower quality versions optimized for online presentation.

¹⁶ Over the period of time that the works were produced, there were significant changes in the use of video formats. Those coincided with both the proliferation of HD as a broadcast and web distribution format, as well as the use of DSLR still cameras offering "broadcast quality" HD acquisition.

¹⁷ Much of the hardware was lower-cost "enthusiast" or gaming-based technology such as Matrox TripleHead2Go Graphic Card, for multiple

simultaneous video streams; Kinect Sensor, the popular consumer game motion sensor; and 8-Channel Sound Cards, for multiple audio streams.

¹⁸ Arduino and MaxMSP are used extensively as artist's prototyping tools. Arduino is a piece of hardware that runs on open source Processing software. MaxMSP is an interactive graphic programming environment for music, audio, and media.

¹⁹ "Cut and Paste" has become part of the vernacular for text editing. Video editing programs also offer simple shortcuts to swap content, such that the shape of the timeline remains consistent, but the shots change.

²⁰ DVD-Video allows a certain amount of scripted interactivity that includes creating playlists and random playback; however, there is no caching ability and there is a delay in the playback of sequences.

²¹ Coding carried out by Stuart Smith / SPEAKOLASCOPE LTD, who had extensive experience creating live interactive video streams for music tours.

²² *A Polish Journey* was presented at iDocs 2015 and featured on an interactive documentary panel with Klynt staff – this led to the sponsorship of software.

²³ Computational Video is also used to describe processes such as using machine intelligence to edit and interpret video footage.

²⁴ This was referred to as "red button technology" and allowed users of set top boxes to access additional interactivity and menu options.

²⁵ The model "lean forward / lean back" has been used to differentiate between the audience engaging by interacting (voting, clicking etc.) and sitting back and watching. This polarity has been subsequently challenged by the gamification of television and the introduction of the second screen.

²⁶ The project made use of bespoke PHP programming code which operates on the remote, server side of the website thus enabling delivery of video playlist generated according to each users interaction.

²⁷ These consisted of potentiometers (variable resistors) that could turn 360° connected to the Arduino boards, thus converting analogue movement to digital signal.

²⁸ The structural aspects of *J9* could be read as an implementation of the ideas of the “multiverse”, as all the journey iterations are but variations on the same theme.

²⁹ Tarot cards are split into two groups: the minor arcana resemble the 52 playing cards, the 22 cards of the major arcana have been associated with divination.

³⁰ Author of book on the social history of the New Forest

Hoare, P., 2006. *England's lost Eden: Adventures in a Victorian Utopia*.

³¹ There are a number of texts in this canon such as:

Rogers, W.H., 1895. *Guide to the New Forest*. Cox & Sharland.

Sumner, H., 1923. *A Guide to the New Forest...* With 10 Illustrations and a Map. Ringwood.

Sumner, H., 1923. *A Map of Ancient Sites in the New Forest, Cranborne Chase, and Bournemouth District*.

Wise, J.R., 1853. *The New Forest: Its History and Scenery*. Smith. London.

³² The tone of the script drew on various wartime personal accounts of displacement across Eastern Europe. Wojciechowska's *Waiting to be Heard* (2009) was a systematic and extensive historical archive that attempted to build a particular picture of the Polish Diaspora during and after WW2.

³³ The Sensory Ethnography Lab has generated a number of projects in recent years that bring cinema and installation aesthetics together.

³⁴ There is a continually growing number of options for immersive headsets offering VR type experiences or 360° video.

³⁵ There have been significant developments regarding the technology for distributing spatial audio such as the Facebook acquisition of Two Big Ears for online binaural video, and Dolby Atmos for cinema display.

³⁶ The Linden Labs, the company behind the online 3D community hub Second Life established in 2003, has now set up Sansar, which is specifically orientated around sharing VR spaces.

Bibliography

Aitken, D., 2005. *Broken Screen: Expanding the Image, Breaking the Narrative: 26 Conversations with Doug Aitken*. New York: Distributed Art Publishers, Inc..

Alexander, B., 2011. *The New Digital Storytelling: Creating Narratives with New Media*. Santa Barbara, Calif.: Praeger.

Aristotle, 1995. *Poetics*. trans. by Stephen Halliwell. Cambridge, MA: Harvard University Press,

Arnheim, R., 1954. *Art and Visual Perception*. Berkeley and Los Angeles, Calif.: University of California Press.

Andriopoulos S., 2013. *Ghostly Apparitions: German Idealism, the Gothic Novel, and Optical Media*. Brooklyn NY: Zone Books.

Barthes, R., 1977. *Image, Music, Text*. London: HarperCollins.

Bbc.co.uk., 2017. *BBC - Research and Development: Surround Video! Yes! SURROUND VIDEO!* [online] Available at: <http://www.bbc.co.uk/blogs/researchanddevelopment/2010/02/surround-video-yes-surround-vi.shtml> [Accessed 2 Aug. 2017].

Bernardo, N., 2011. *The Producer's Guide to Transmedia, How to Develop, Fund, Produce and Distribute Compelling Stories Across Multiple Platforms*. London: beActive Books.

Bizzocchi J, Eigenfeldt A, and Thorogood M., 2014. 'MediaScape: Towards a Video, Music, and Sound Metacreation'. *CITAR Journal*, Volume 6, No. 1 – Special Issue: xCoAx

Block B., 2007. *The Visual Story: Creating the Visual Structure of Film, TV and Digital Media*. London: Focal Press.

Brewster D A., 1851. *A Treatise On Optics*, London: Longmans & Co..

Burroughs. W.S. and Gysin B., 1978. *Third Mind*. New York: Viking.

Brougher, K., 2005. *Visual Music: Synaesthesia in Art and Music Since 1900*. New York: Thames & Hudson.

Bracken, C.C. and Skalski, P. eds., 2010. *Immersed in Media: Telepresence in Everyday Life (Routledge Communication Series)*. New York: Routledge.

Company, D. (ed.), 2007. "When to be Fast? When to be Slow?" in *The Cinematic*. Cambridge MA: The MIT Press.

Campbell J., 1988. *The Power of Myth*. New York: Doubleday.

Campbell, J., 2008. *The Hero with a Thousand Faces*. Novato, Calif.: New World Library.

Çağlayan., Çağlayan, E. and Aboujieb, 2018. *Poetics of Slow Cinema*, 1st ed. Palgrave Macmillan.

Courchesne, L., 2002. *Experiential Art: Case Study*. [online]. Available at: <http://ic.media.mit.edu/courses/mas878/pubs/courchesne-02-experiential-art.pdf> [Accessed 19 Dec. 2017].

Davenport, G., Agamanolis, S., Barry, B., Bradley, B. and Brooks, K., 2000. Synergistic storyscapes and constructionist cinematic sharing. *IBM Systems Journal*, 39(3.4), pp.456-469.

Davenport, G., 2000. Your Own Virtual Storyworld. *Scientific American*, Nov, 79-82

Deleuze, G., 1986. The Brain is the Screen: An Interview with Gilles Deleuze. G. In Flaxman. (ed.) 2000. *The Brain is the Screen. Deleuze and the Philosophy of the Cinema*. Minneapolis & London: University of Minnesota Press.

Deleuze, G., 2005. *Cinema 2: The Time-Image*. London: Continuum.

De Luca, T. and Barradas, J., 2015. *Slow Cinema*. Edinburgh: Edinburgh University Press.

Descartes, R., 1986. *Meditations on First Philosophy*. New York: Cambridge University Press.

Deutsch, D. (ed.), 2013. *The Psychology of Music*. San Diego: Elsevier

Dorsky, N., 2005. *Devotional Cinema*. Berkeley, California: Tuumba Press, Print.

- Dorsky, N., 2012. Bombmagazine.org. BOMB Magazine — *Meditations on Film: Nathaniel Dorsky* by Ari Spool. [online] Available at: <http://bombmagazine.org/article/6852/> [Accessed 23 Aug. 2017].
- Ebert, R., 2008. *Roger Ebert's Journal* [online]. Chicago Sun-Time, September 10, 2008 [Accessed 23 Aug. 2017].
- Elsaesser, T., 2012. Stop/motion. In E. Røssaak (Ed.), *Between stillness and movement: film, photography, algorithms* (pp. 109-122). (Film Culture in Transition). Amsterdam: Amsterdam University Press.
- Elsaesser, T., 2016. *Film History as Media Archaeology*. Amsterdam: Amsterdam University Press.
- Flanagan, M., 2012, 'Slow Cinema': Temporality and Style in Contemporary Art and Experimental Film. PhD thesis. Exeter: University of Exeter.
- 2008. Towards an Aesthetic of Slow in Contemporary Cinema. 16:9 29, [online]. http://www.16-9.dk/2008-11/side11_inenglish.htm [Accessed 23 Aug. 2017].
- Foucault, M., 1972 *The Archaeology of Knowledge*. New York: Pantheon Books.
- Friedberg, A., 2009. *The Virtual Window*. Cambridge: The MIT Press.
- Friedman M., 1998. Why Joseph Campbell's Psychologizing of Myth Precludes the Holocaust as Touchstone of Reality. *Journal of the American Academy of Religion*, 66(2), 385-401. [Retrieved from <http://www.jstor.org/stable/1465679>]
- Geiger, M., 2015. On the essence and meaning of empathy, Part I. *Dialogues in Philosophy, Mental & Neuro Sciences*, 8(1).
- Ghella S., Wiklund-Engblom A., Morrison A. and Obal D. 2016. *Transmedia Perspectives*. In: Lugmayr A., Dal Zotto C. (eds.) *Media Convergence Handbook - Vol. 2. Media Business and Innovation*.
- Gidal, P., 1976. *Structural film anthology*. British Film Institute.
- Graham, B., 2007. Redefining digital art: Disrupting borders. *Theorizing Digital Cultural Heritage: A Critical Discourse*, pp.93-112.
- Gregory, R., 1997. *Mirrors in Mind*. New York: Macmillan Press.

Gumbrecht, H.U., 2004. *Production of presence: What meaning cannot convey*. Palo Alto, Calif.: Stanford University Press.

Gunkel, D., 2000. Rethinking virtual reality: Simulation and the deconstruction of the image. *Critical Studies in Media Communication*, 17(1), pp.45-62.

Gunning T., 2015. *Phantom Images and Modern Manifestations: Spirit Photography Magic Theater Trick Films and Photography's Uncanny* reprinted in Leeder, M. (ed.), *Cinematic Ghosts*. London. Bloomsbury.

Hales C., Pellinen T. and Castrén M., 2006. *A Story Between Storeys: Algorithmic and Audience Control of Video Segments in an Experimental Interactive Television Programme*, *Digital Creativity* Vol. 17, Iss. 4.

Harding, L., 2017. *Google Russia creates virtual tour of Trans-Siberian railway journey*. [online] The Guardian. Available at: <https://www.theguardian.com/world/2010/feb/16/google-tran-siberian-express-tour> [Accessed 2 Aug. 2017].

Hatfield, J., 2004. The Subject in Expanded Cinema, *Art in-sight 11*. *Filmwaves* 24:2, pp 14-18.

Heath, S., 1981. *Questions of Cinema*. Macmillan International Higher Education.

Heim, M., 1994. *The Metaphysics of Virtual Reality*. Oxford: Oxford University Press on Demand.

Hellar N., 2014. *Slow TV Is Here*. *The New Yorker*. New York. [Accessed 23 August 2017].

Hockley, L., 2013. *Somatic Cinema: The Relationship Between Body and Screen-a Jungian Perspective*. London: Routledge.

Hoptman L., 2010. *Brion Gysin*. London: Merrell Publishers

Horsburgh, A.J., 2015. *An Interactive Multimedia Experience: A Case Study*. In *Audio Engineering Society Convention 138*. Audio Engineering Society.

Huhtamo, E., 1995. *Encapsulated Bodies in motion: Simulators and the Quest for Total Immersion* in *Critical Issues in Electronic Media*, ed. Simon Penny, 159-86. Albany: SUNY Press.

Huhtamo, E., 2016. *Art in the Rear-View Mirror, in A Companion to Digital Art* (ed. C. Paul), Hoboken, NJ: John Wiley & Sons, Inc.

Husserl, E., 1983. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, First Book*, translated by F. Kersten, Martinus Nijhoff Publishers.

Ilhan B, Otnes C, and Kozinets R., 2013. *Transmedia Consumption Experiences: Patching As a Narrative Consumption Practice*, in *NA - Advances in Consumer Research*. Volume 41, eds. Simona Botti and Aparna Labroo. Duluth, MN: Association for Consumer Research.

i-Docs.. 2017. *A Polish Journey: A web-doc about migration & its legacy*. [online] Available at: <http://i-docs.org/2016/04/19/a-polish-journey-a-web-doc-about-migration-and-its-legacy/> [Accessed 10 Jul. 2017].

Ippa, N., 2001. *Interactive Design for New Media and the Web*. London: Focal Press.

Jenkins, H., 2003. *Transmedia storytelling. Moving characters from books to films to video games can make them stronger and more compelling*. Technology Review. Available at: <http://www.technologyreview.com/biotech/13052/> [Accessed 10 Jul. 2017].

---, 2007. *Transmedia storytelling 101*. <http://www.henryjenkins.org> [on line blog], 22 March. Available at: http://www.henryjenkins.org/2007/03/transmedia_storytelling_101.htm [Accessed 17 July 2017]

---, 2008. *Convergence Culture: Where Old and New Media Collide*. New York, N.Y.: New York University Press.

Jenkins, H., Ford, S. and Green, J., 2013. *Spreadable media*. New York, N.Y.: New York University Press.

Jung, C., 1990. *Man and His Symbols*. London: Arkana.

Kant, I., 1998. *Critique of Pure Reason*. Cambridge University Press.

Kinder, M., 1991. *Playing with Power in Movies, Television and Video Games*. California: University of California Press.

- Kiss, J., 2017. *Channel 4 axes 4iP*. [online] The Guardian. Available at: <https://www.theguardian.com/media/2010/oct/07/channel-4-axes-4ip> [Accessed 14 Aug. 2017].
- Kittler, F., 2009. *Optical Media*. Cambridge: Polity.
- Konczak, J., 2010. *J9 Southampton*: Hidrazone. [exhibition catalogue]
- Konczak, J., 2011. *Telenesia Southampton*: Hidrazone. [exhibition catalogue]
- Konczak, J. and Hoare P., 2013. *Forest*. Southampton: Hidrazone. [exhibition catalogue]
- Kukshinov, E., 2016. *Two Sides of the Same Immersion*. Media Psychology Review. [Online] Vol 10(1). Retrieved from <http://mprcenter.org/review/two-sides-of-the-same-immersion> [Accessed 17 Aug. 2017].
- Kawai H., 1988. *The Japanese Psyche: Major Motifs In The Fairy Tales Of Japan*. Spring Publications
- Lévi-Strauss, C., 1987. *Anthropology and myth: Lectures 1951-1982*. Oxford: Blackwell.
- Lim, S.H., 2014. *Tsai Ming-Liang and a Cinema of Slowness*. Honolulu: University of Hawaii Press
- Lombard M., (ed.) 2015. *Immersed in Media: Telepresence Theory, Measurement & Technology*. London. Springer.
- Lombard, M. and Ditton, T., 1997. *At the Heart of It All: The Concept of Presence*. Journal of Computer-Mediated Communication, 3: 0. doi:10.1111/j.1083-6101.1997.tb00072.x
- Lombard, M., Reich, R., Grabe, M., Bracken, C. and Ditton, T., 2000. *Presence and television*. Human Communication Research, 26: 75–98. doi:10.1111/j.1468-2958.2000.tb00750.x
- Lotto, B., Cardilli, L. and Socci, L., 2017. *Deviate: the science of seeing differently*. London: Weidenfeld & Nicolson.
- Lovejoy, M., 2004. *Digital currents: art in the electronic age*. London: Routledge.

- Lubezki, E., 2016 *Digital gave me something I could never have done on film*. [online] Available at: <https://www.dpreview.com/interviews/4663212665/interview-with-three-time-oscar-winning-cinematographer-emmanuel-lubezki> [Accessed 17 Aug. 2017].
- Manovich, L., 2001. *The Language of New Media*. Boston MA: MIT press.
- , 2013. *Software Takes Command* (International Texts in Critical Media Aesthetics). Int Edition: Bloomsbury Academic.
- McLuhan, M., 2011. *Understanding Media*. Berkeley: Jingo Press.
- McLuhan, M. and Fiore, Q., 1967. *The Medium Is the Message*. Mentor: New York.
- Menkman, R., 2011. *Glitch studies manifesto*. Video vortex reader II: Moving images beyond Youtube, pp.336-347. [online] Available at: http://www.networkcultures.org/uploads/%236reader_VideoVortex2PDF.pdf [Accessed 17 Aug. 2017].
- Milk, C., 2015. *How virtual reality can create the ultimate empathy machine*. [Video File]. Available at: https://www.ted.com/talks/chris_milk_how_virtual_reality_can_create_the_ultimate_empathy_machine [Accessed 17 Aug. 2017].
- Mills, P., Debenham, P., Sheikh, A. and Thomas, G., 2011. [online]. *Surround video. White Paper*. Available at: <http://downloads.bbc.co.uk/rd/pubs/whp/whppdf-files/WHP208.pdf>. [Accessed 17 Aug. 2017].
- Moustakas, C. E., 1994. *Phenomenological research methods*. Thousand Oaks, Calif.: Sage Publications.
- Murtaugh, M., 1996. *The Automatist Storytelling System. Putting the Editor's Knowledge in Software*. Boston MA: Massachusetts Institute of Technology.
- Nesteruk, J., 2015. *Digital Storytelling*. Journal of Management Education, 39(1), 141-152
- Noordegraaf, J., Saba, C., Le Maitre, B. and Hediger, V., 2013. *Preserving and Exhibiting Media Art: Challenges and Perspectives*. Amsterdam: Amsterdam University Press.

Organisation for Economic Co-operation and Development OECD., 1998. *21st century technologies: promises and perils of a dynamic future*. OECD. [online] Available at: <https://www.oecd.org/futures/35391210.pdf> [Accessed 17 Aug. 2017].

Paul, C., 2003. *Digital Art*. London: Thames & Hudson.

Parikka, J., 2012. *What is Media Archaeology?* Cambridge: Polity.

Parikka, J., 2014. *The Anthrobscene*. Minneapolis, Minnesota: University of Minnesota Press.

Poe, E.A., 2006. *The Fall of the House of Usher and Other Tales*. London: Penguin.

Powell, A., 2012. *Deleuze, Altered States and Film*. Edinburgh: Edinburgh University Press.

Power, P., Dunn, C., Davies, B. and Hirst, J., 2013. *Localisation of Elevated Sources in Higher-Order Ambisonics*. BBC Research & Development White Paper, WHP 261. [online] Available at: https://www.researchgate.net/publication/264729664_Localisation_of_Elevated_Sources_in_Higher-Order_Ambisonics [Accessed 17 Aug. 2017].

Propp, V., 1968 *Morphology of the Folktale [1928]*. Trans. Laurence Scott. Austin, TX: University of Texas Press. 2nd Edn.

Radano, R.M., 1989. *Interpreting Muzak: Speculations on musical experience in everyday life*. *American Music*, pp.448-460.

Rauch, J., 2011. *The Origin of Slow Media: Early Diffusion of a Cultural Innovation through Popular and Press Discourse, 2002-2010*. *Transformations* (14443775), (20).

Rauch, J., 2018. *Slow Media: Why Slow is Satisfying, Sustainable, and Smart*. Oxford University Press.

Rees, A., 2013. *A History of Experimental Film and Video*. Basingstoke, Hampshire: Palgrave Macmillan.

Rieser, M. and Zapp, A. eds., 2002. *New screen media: cinema/art/narrative*. London: British Film Institute.

- Romney, J., 2010: In Search of Lost Time. *Sight and Sound* 20.2 43-44. Print.
- Roszak, T., 1991. *Flicker: A Novel*. New York: Summit Books
- Rush, M., 2005. *New Media in Art*. London: Thames & Hudson.
- Ryan, M., 2003. *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore: Johns Hopkins University Press.
- Ryan, M. ed., 2004., *Narrative across media: The languages of storytelling*. Nebraska: University of Nebraska Press.
- Said, E. W., 1978. *Orientalism*. New York, NY: Vintage.
- Schnall, S., C. Hedge and Weaver R., 2012. *The Immersive Virtual Environment of the digital fulldome: Considerations of relevant psychological processes*. *International Journal of Human - Computer Studies*, 70(8), 561
- Scoates, C., 2013. *Brian Eno: Visual Music*. San Francisco: Chronicle Books.
- Scolari, C. A.. 2009. *Transmedia Storytelling: Implicit Consumers, Narrative Worlds, and Branding in Contemporary Media Production*. Available at: <http://hdl.handle.net/10854/2867> [Accessed 17 Aug. 2017].
- Scolari C. A.. 2014. *Transmedia storytelling: new ways of communicating in the digital age*. In: Celaya J, editors. *Anuario AC/E de cultura digital: focus 2014: the use of new technologies in the performing arts*. España: Acción Cultural Española; 2014. p.68-79.
- Sconce, J., 2000. *Haunted media: Electronic presence from telegraphy to television*. Durham: Duke University Press.
- Slade, G., 2007. *Made to Break*. Cambridge, MA: Harvard University Press.
- Stein, E., 1964. *On the Problem of Empathy*, trans by W. Stein, London: Springer
- Tarkovsky, A., 1989. *Sculpting in Time: Reflections on The Cinema*. London: Faber And Faber.
- Todorov, T., 1975. *The fantastic: A structural approach to a literary genre*. Cornell University Press.
- Toelken, B., 1996. *Dynamics Of Folklore*. University Press of Colorado.

- Ulrich, H., 2003. *Production of Presence: What Meaning Cannot Convey*. Stanford, California: Stanford University Press.
- Verhoeff, N., 2012. *Mobile Screens: The Visual Regime of Navigation*. Amsterdam: Amsterdam University Press.
- Vogler, C., 1999. *The Writer's Journey*. London: Pan.
- Warner M., 2008. *Phantasmagoria: Spirit Visions, Metaphors, and Media into the Twenty-first Century*. Oxford: Oxford University Press.
- Wilson, C.J. And A. Soranzo, 2015a. *The Use of Virtual Reality in Psychology: A Case Study in Visual Perception*. Computational and mathematical methods in medicine, 2015, 151702
- Wojciechowska, B., 2009. *Waiting to be Heard*. Bloomington, Ind.: Author House.
- Weibel P., 2003. *Expanded Cinema, Video and Virtual Environments*, in *Future Cinema: The Cinematic Imaginary after Film*, eds. Jeffrey Shaw and Peter Weibel, MIT Press, pp 110-124.
- Wertheimer, M., 1923. *Laws of Organization in Perceptual Forms. A Source Book of Gestalt Psychology*. New York: Hartcourt, Brace and Co..
- White, D., 2009. *Mapping Expanded Cinema, Vertigo 4:2* (Winter-Spring 2009).
- Winston, B., 1996. *Technologies of Seeing: Photography, Cinematography and Television*. London: British Film Institute.
- Young, P., 2009. *Art Cinema*. Koln: Taschen.
- Youngblood, G., 1970. *Expanded Cinema*. New York: Dutton
- Zakia R D., 2013. *Perception and Imaging: Photography - A Way of Seeing*. Burlington, MA: Focal Press.
- Zielinski S., 2008. *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means (Electronic Culture: History, Theory, and Practice)*. Cambridge, MA: MIT Press.

IU International. 2017. *Empathy Machine*. [online] Available at: <https://worldwide.iu.edu/communications/magazine/issues/2013/spring/articles/cinema.pdf> [Accessed 15 Aug. 2017].

Moving Image and Installations

Aitken, D., *Altered Earth iPad App*. 2013. [online] Available at: <https://itunes.apple.com/us/app/altered-earth/id470658082?mt=8>. [Accessed 09 December 2017].

al Muzayyen, K. and Elmaliah, R., 2008. *Gaza Sderot - Life in spite of everything*. [online] Gaza-sderot.arte.tv. Available at: <http://gaza-sderot.arte.tv/> [Accessed 19 Dec. 2017].

Ataman, K., 2011. [Video]. *Mesopotamian Dramaturgies*. Brighton Festival, UK.

Blair, D., 2017. *bio:index [The Telepathic Motion Picture of THE LOST TRIBES]*. [online] Telepathic-movie.org. Available at: <http://www.telepathic-movie.org/doku.php?id=bio:index> [Accessed 19 Dec. 2017].

Cizek, K., 2017. *Highrise*. [online] Available at: <http://highrise.nfb.ca/> [Accessed 19 Dec. 2017].

Honkytonk.fr., 2017. *Journey to the End of Coal* - Web documentary by Samuel Bollendorff & Abel Ségrétin [online] honkytonk. Available at: <http://www.honkytonk.fr/webdocs/journey/> [Accessed 21 Dec. 2017].

Konczak, J., 2005. *Cracked Cities*. [online] Available at: http://www.hidrazone.com/artists/julian_konczak/cracked_cities/cracked_cities.html [Accessed 21 Dec. 2017].

Konczak, J. and Richards, R., 2006 [Installation]. *Mass Production*. London: Mindplay.

Leviathan, 2012. [Film]. Directed by Véréna Paravel and Lucien Castaing-Taylor. USA: The Cinema Guild.

Manovich, L. and Kratky, A., 2005. [DVD]. *Soft Cinema: Navigating the Database*, pamphlet with accompanying DVD-ROM. Cambridge, MA: MIT Press.

Shadow of the Sun, 1981. [Film]. Directed by Derek Jarman. UK: Dark Pictures.

Single Stream, 2013. [Film]. Toby Lee and Paweł Wojtasik USA: Sensory Ethnography Lab.

Napoléon, 1927. [Film]. Dir. Abel Gance. France: Gaumont.

The Cut Ups, 1966. [Film] Directed by Anthony Balch. United Kingdom: Anthony Balch.

Wynne, J., 2009. [Installation]. *Installation for 300 speakers, Pianola and vacuum cleaner*. London: Saatchi Gallery.

Appendix 1 – Documentation of Works submitted on USB drive.

1 J9

Folder_1A Source Films

J9_template_1.mp4

J9_template_2.mp4

J9_template_3.mp4

J9_template_4.mp4

J9_template_5.mp4

J9_template_6.mp4

J9_template_7.mp4

J9_template_8.mp4

J9_template_9.mp4

Folder_1B Web Interface Documentation

J9_Web_Walkthrough.mp4

J9_Website_01.jpg

J9_Website_02.jpg

J9_Website_03.jpg

J9_Website_04.jpg

J9_Website_05.jpg

Folder_1C Installation Images

100314A021.jpg

100314A089.jpg

100314A113.jpg

100314A130.jpg

Folder_1D J9 Catalogue pdf

j9.pdf

Directed and Produced: Julian Konczak

Camera and Editor: Julian Konczak

Original Music: Jeremy Avis

Electronic Sound Beds: Jon Pigott

Sound Design and Mix: Julian Konczak

2 Telenesia

Folder_2A Source Film

telenesia.mp4

Folder_2B Web Interface Documentation

Telenesia_Website_01.jpg

Telenesia_Website_02.jpg

Telenesia_Website_03.jpg

Telenesia_Website_04.jpg

Telenesia_Website_05.jpg

Folder_2C Installation Images

110909A030.jpg

110909A035.jpg

110909A040.jpg

111015A020.jpg

111015A021.jpg

111015A022.jpg

111015A023.jpg

111015A026.jpg

111015A027.jpg

111015A032.jpg

EXHIBITION telenesia.mp4

Folder_2D Telenesia Catalogue pdf

telenesia.pdf

Directed and Produced: Julian Konczak

Camera: Julian Konczak

Editor: Jasmin B. Hirtle

Sound: Natalia Kulabuchova

3 The Interactive Forest

Folder_3A Source Film

ORIGINAL_MUTE_COMP_full_AUDIO.mp4

Folder_3B Web Interface Documentation

The_Interactive_Forest_Website_01.jpg

The_Interactive_Forest_Website_02.jpg

The_Interactive_Forest_Website_03.jpg

The_Interactive_Forest_Website_04.jpg

The_Interactive_Forest_Website_05.jpg

The_Interactive_Forest_Website_06.jpg

The_Interactive_Forest_Website_07.jpg

The_Interactive_Forest_Website_08.jpg

Folder_3C Installation Images

151031A_003.jpg

151031A_009.jpg

151031A_013.jpg

151031A_017.jpg

151031A_021.jpg

151031A_023.jpg

151031A_030.jpg

151031A_035.jpg

151031A_049.jpg

Forest by Julian Konczak - YouTube.mp4

forest_3screen_july_3D_animated.m4v

Screen Recording 1.m4v

Screen Recording 2.m4v

Folder_3D The Interactive Forest Catalogue pdf

forest.pdf

Directed and Produced: Julian Konczak

Camera and Editor: Julian Konczak

Music and Sound Mix: Natalia Kulabuchova

Ambisonic: Sound Mix: Andrew Horsburgh

A Polish Journey

Folder_4A Source Film

A Polish Journey_1.mp4

A Polish Journey_2.mp4

A Polish Journey_3.mp4

A Polish Journey_4.mp4

A Polish Journey_5.mp4

A Polish Journey_6.mp4

A Polish Journey_7.mp4

Folder_4B Web Interface Documentation

A_Polish_Journey_Website_01.jpg

A_Polish_Journey_Website_02.jpg

A_Polish_Journey_Website_03.jpg

A_Polish_Journey_Website_04.jpg

A_Polish_Journey_Website_05.jpg

A_Polish_Journey_Website_06.jpg

A_Polish_Journey_Website_07.jpg

A_Polish_Journey_Website_08.jpg

Folder_3C Web Interface Walkthrough

APolishJourneyWalkthrough.mp4

Directed and Produced: Julian Konczak

Camera and Editor: Julian Konczak

Assistant Editor: Jasmin B. Hirtle

Colour Grade: Geoff Hockney

Sound Design and Mix: Julian Konczak

Original Music: Jeremy Avis

Electronic Sound Beds: Natalia Kulabuchova

Voice Over: Adam Wittek