iPad: A Virtual Studio in my Handbag

By

Angela Hayward

Thesis submitted in partial fulfilment of the requirements

for the Degree of Doctor of Philosophy (PhD)

In Collaboration with:

University of the Arts London

Arts University Bournemouth

June 2018

Dedication

I would like to dedicate this thesis to my sister, Debs, who always supported me and who I wish could have seen that I'd completed it. I would like to acknowledge the help and support of my supervisory team, Dr Kavita Hayton, Dr Mark Ingham, Professor Stephanie James, Research Manager Valerie Lodge and all my family and friends whose absolute confidence in me has without a doubt enabled me to keep going and finish what I started.

Abstract

Central to this practice-based investigation is the concept that the iPad has the potential to provide the appropriate tools and resources required to create a body of new and original artworks. I suggest that the iPad enables the artist to re-define the concept of an artist's studio and facilitates a move away from the traditional studio towards a new virtual studio. This investigation considers the affordances of the iPad in engendering new ways of visualising intimate, private, domestic and public space, through filmmaking, photography, and digital drawing and painting.

The practice-based element of this doctorate is interwoven with an investigation of relevant critical theory and is presented as a descriptive analysis of my virtual studio. The research explores the contemporary methodologies of arts-based research; autoethnography and visual and digital ethnography. My contribution to knowledge is that the iPad is a virtual studio that enables myself and other artists to create new modes of creative practice.

I have examined and analysed the historical technological contexts that form the foundations for the emergence of a new means of artistic production. I have also addressed questions around machine replicability and the role of new media in shaping the cultural landscape.

An autonomous case study reflects on the emergence of new ethical codes of practice in relation to new media iPad art and considers the role of digital integrity within new Fine Art digital practices. It investigates the emergence of innovative online digital artistic communities who use the iPad as the main tool for the creation of iPad art and then access social networking platforms for its dissemination. It further researches a blog of female peers to consider the duality of the iPad as a complementary toolkit to traditional media.

Contents

Chapter I

Chapter II

Chapter III

Chapter IV

Chapter V

Figure 1. Film still: 'iPad in my Handbag' (2014).

iPad: A Virtual Studio in my Handbag

Introduction

Can the Apple Inc iPad fulfil the function of a studio for new and existing creative practice?

To date, little critical attention has been paid to the iPad in relation to the impact it has had on the artistic community. This practice-based doctoral research uses an autoethnographic approach to explore the tools, functions and possibilities of the iPad as a viable virtual studio. Apple's iPad was first introduced onto the market in 2010 and as the product has developed there has been a lot of hype surrounding its potential. The makers initially claimed that it has the potential to be a tool for making artworks, an advert from August 2010 shows a portrait being drawn on the first iPad, followed by the word 'artful'. Typically, manufacturers tend to exaggerate the capabilities of their product and claims may not always reflect the expectation of the artist. This thesis explores the concept that the iPad provides me with enough tools and resources to create a body of new artworks without resorting to the traditional studio. My own creative practice is at the centre of this research and is supported by a critical thesis. The key concept is that the iPad is being used by myself and a selection of artists as a virtual studio that facilitates new creative practice.

The methodological approach I have used for this research is primarily autoethnographic which I believe is appropriate for a practice-based project, as it is both self-reflexive and socially situated. This research develops the comparatively new methodologies of art-based inquiry and autoethnography. To contextualise the impact of the iPad on my own creative practice, it is important that I established how my personal practice is situated. To do this I offer a brief historical account of my artistic background and creative practice.

In the late 1980s, I attended an Art Foundation Course at Doncaster School of Art, where I was taught observational drawing through life drawing and still life and was taught to paint and print make. Here I learnt analogue camera and darkroom skills and began making and editing 8 millimetre and Super 8 films. I further developed these skills through a Fine Art degree course between 1991 and 1994.

After graduation I began teaching life drawing, painting and printmaking and have continued to teach and participate in life drawing. Over the following decades, I worked, travelled, had a family and took employment that fit round family life. Whilst my children were at secondary school, I found the time to continue with my creative practice and returned to education. I continued working whist completing a master's degree in Painting at Winchester School of Art from 2006 to 2008. My work was primarily figurative, using observational drawing, painting, photography and printmaking to capture domestic and social space.

My first introduction to digital composition was through learning Adobe Photoshop on my master's degree, initially as a means of helping to create compositions for painting and printmaking. Around this time, (2008), I acquired a desktop computer at home, followed by a digital camera, printer and image manipulation software including Adobe Photoshop Elements. Upon graduation, when time could be found - usually in the evenings - between work, housework and childcare, I continued to draw, paint, take digital photographs and develop my Adobe Photoshop skills.

As a practicing fine artist, time, space and economics impacted on the way I worked. Time to make artworks was restricted due to work and family commitments, space had to be found and utilised. The buying of equipment and supplies was restricted due to the realities of being in low paid employment whilst raising a family. Most equipment was acquired second-hand. Canvas, paints, paper, printmaking inks, had to be saved up and budgeted for. For example, to paint a 4-foot by 4-foot canvas would cost approximately between £100-300, including wood, canvas, paints. To set up printmaking, the second-hand printing press cost £200, printing inks cost £30-40 a tube, lino was approximately £30 per square foot. To set up a darkroom, the enlarger and other equipment was bought at auction for the cost of £300, with paper and chemicals costing a further £100 every other month. Inks and printing paper for digital photography cost between £30-£50 a month.

There were times when the money was not available for paints, good quality paper, or when printmaking having to use a limited colour palette. In this sense my experience is fairly typical of many artists as financial limitations means that an element of creativity, resourcefulness and experimentation is required. I would argue that these restrictions did not completely impede my practice, instead they facilitated an approach of fully exploring whatever equipment and materials were available to me, for example, using wallpaper to draw on, wood cuts on reclaimed wood, photographing and re-filming projections.

Over three decades, my studio spaces have included shared college and university spaces, spare bedroom, loft, garden shed, sitting room and kitchen. The cost of hiring a studio has been out of my financial reach. Depending on the space, work could either be left out and returned to, or had to be tidied away after each session due to the lack of space. Always a prolific worker, my sketchbooks, paintings, prints, wood and lino cuts have been stored in attics, basements and garages. When painting I would often be working on several paintings simultaneously, both on canvas and wood, ranging in size from 6 inches by 6 inches to 6 feet by 6 feet. I used a table, covered thickly in paints and printing inks as a palette, which I moved from space to space. When printmaking, I would also work on several wood and lino cuts at the same time.

My studio spaces have contained: piles of sketchbooks, easels, canvas, paints, knives, brushes, chemicals including paint thinners and turpentine, workman bench, jigsaw, drill, printing press, inks, rollers, wood, lino, darkroom chemicals, enlarger, analogue cameras, super 8 cameras, film splicers, video cameras, projectors, desktop computer, printer, digital camera. The final piece of equipment before my iPad, was a second-hand Apple Macintosh MacBook Pro used mainly for editing digital photographs, compositions and basic time-lapse photographic editing. In 2011, after 18 months use, my MacBook broke, looking for a cheaper replacement I bought an iPad.

Ellis, Adams and Bochner (2011), claim that an epiphany occurs through an insight into a significant change, 'remembered moments perceived to have significantly impacted the trajectory of a person's life' (Ellis, et al. 2011: 63). My epiphany was the understanding that the iPad would offer new ways to work, because of this, I chose to conduct this practice-based research on the iPad and its applications. Since starting this research there have been significant changes in my personal circumstances, which resulted in taking a year out from my studies and going travelling before returning to complete my research. The combination of changing personal circumstances and travelling impacted and changed the shape of my practice-based research. Throughout this time these changes and the way, I subsequently used my iPad enabled my creative practice to both continue and flourish.

This thesis will demonstrate that the iPad has offered me a continuation of my creative practice, transformed through technology. My creative practice has been transformed by the iPad and its applications. My virtual studio provides a seemingly unlimited supply of paints; acrylics, oils, watercolours, tones, hues, textures, paper, canvas, pens, brushes, knives. It provides virtual space for storing and saving work. It contains a camera with unrestricted lenses and filters, and a video camera with unlimited filmmaking resources and editing equipment. It is both a portfolio and a space for dissemination, as it is a global art gallery.

Although the iPad comes pre-loaded with basic applications, I consider my iPad a vast studio space that gives me total control over the tools and processes I require for my creative practice. The iPad has brought all the different elements of my creative practice into a single device, it is a portable virtual studio.

Creative Practice

My creative practice explores feminist discourses firmly rooted in social commentary, investigating relationships between personal, domestic and public spaces. While I have always used a variety of materials and processes, my methodology has been consistent. The aesthetic comparisons between artworks may not always be obvious but they are linked by recurring formal concerns and subject matter. I have taken an experimental approach to photography and filmmaking, which has developed over the years through acquiring different photographic and filmmaking equipment. As a painter and print maker, I think in terms of aesthetics: composition, colour, texture, form, layer and tone.

With the iPad as the predominant tool for artistic production, I believe that my creative practice has been liberated from the need of a physical studio space. It is the size of an A4 sketchbook and fits into my handbag making it easy to carry around. As my handbag comes everywhere with me, and is never far from my side, I can have my iPad with me constantly. It is instantly accessible and ready to respond immediately to my environment, enabling me access to multiple functions that facilitate filmmaking, photography, drawing and painting. The research for this thesis constitutes a formal exploration of subjective experience that reflects the ways the iPad has genuinely replaced the need for a physical studio and equipment.

The Structure of the Thesis

A contextualising literature review will analyse discourses of feminist art practices and theories. It will start from a historical perspective, and consider the devices and technologies women artists have previously utilised to make art. It will consider different conceptual spaces that have and are being used to explore new ways of visualising the nature of domestic, public and virtual space. The artists and theorists discussed within the literature review are predominantly ones that have influenced my own creative practice. The literature review will go on to examine historical technologies to contextualise the iPad's place within a technological framework.

The research methodology chapter provides the theoretical and practical approaches I have applied to my research. This is followed by a case study of other creative practitioners, contemporaries and peers, whom I have identified as using the iPad in their creative practice. I have examined two online communities: 'iPad Artists[1]' and 'The Mobile Arts Collective[2] ', in order to gain as wide a range of perspectives as possible. The case study investigates the innovative digital artistic communities that have emerged through a new digital synergy with the dissemination of the new media iPad art at its heart.

The iPad's Wi-Fi connectivity enables the dissemination of new media artworks across global networking platforms. Rapid acceleration in developments of technology have changed the visual landscape through new media digital art and our online social interactions. Distribution of digital artworks primarily via online creative communities, has facilitated virtual global art galleries offering new ways of interacting, allowing instantaneous feedback and creating new online relationships.

Through the creative practice of this thesis, I investigate the affordances of a cluster of the iPad's artistic applications. Four artistic disciplines are analysed, which include; filmmaking, photography, drawing and painting. Consideration is given to how these are used, to explore new visualisations of intimate, private, domestic and public space and are presented with a critical and reflective analysis. Finally, the findings that I made through my research are considered.

---

[1] https://www.facebook.com/groups/iartists/ [22nd February 2018]

[2] https://www.facebook.com/groups/MobileArtists/ [22nd February 2018]
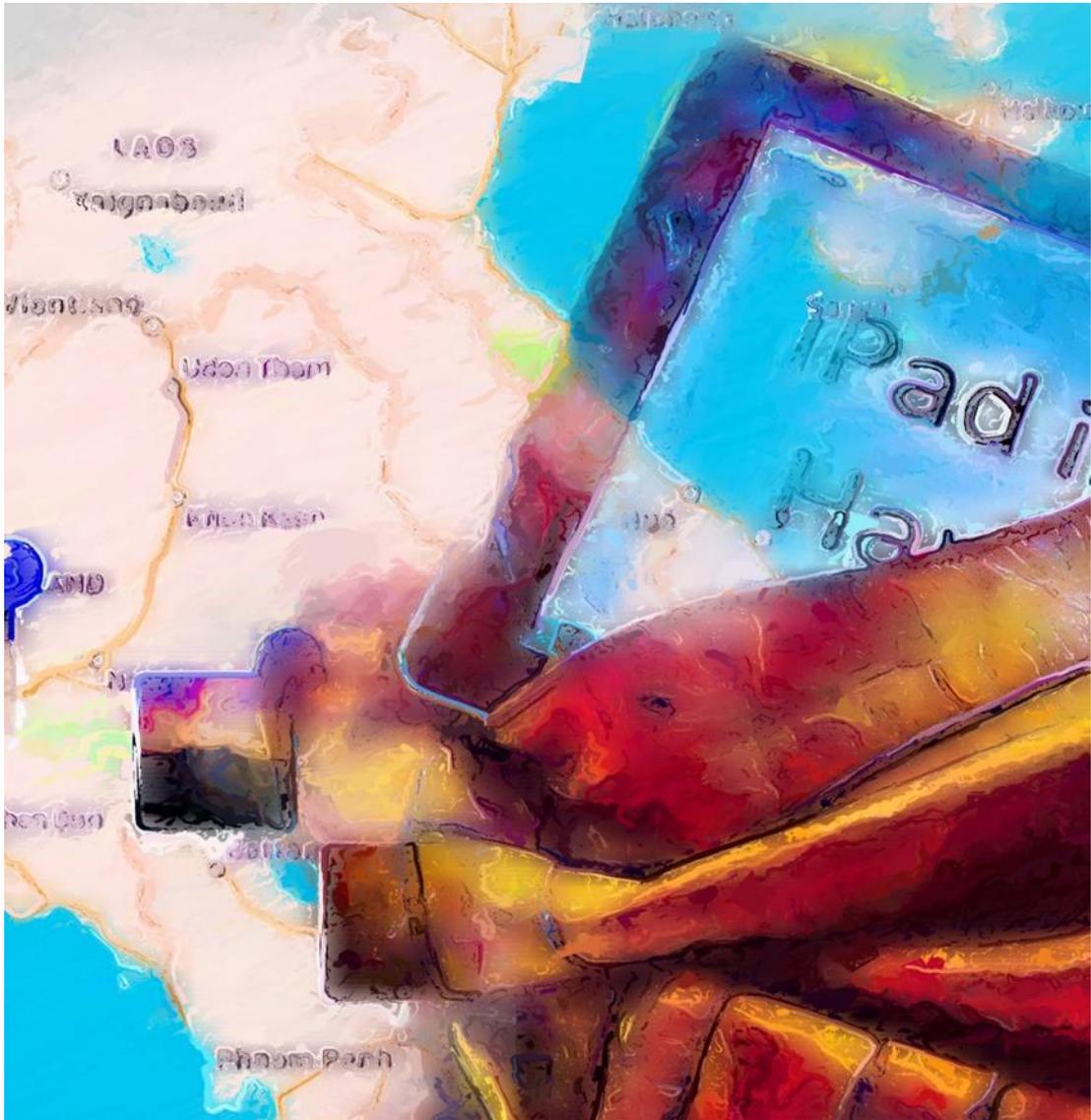
Figure 2. Photograph: Glaze. Cut & Paste (2017).

Chapter I

1. Literature Review

1.1 Overview

The purpose of this literature review is to establish an interrelating and interconnected discourse of the women artists and theorists who informed my creative practice. The literature review shall first contextualise a framework for this research, through presenting a brief historical overview of feminist art practices. The review will also consider the historical technological framework from which the iPad has emerged and what it means to be an artist today and the contribution it has made to artists working today. The literature review is presented under the following headings:

- What does it mean to be a feminist artist?
- Is the computer a viable artistic tool?
- How has computing enabled creative and artistic practice?
- Does networking provide new ways of disseminating art?
- What does it mean to be an artist today?

Catherine Elwes (2005) discussion on the work of Martha Rosler (1975 & 1977) is explored as it inspired my creative practice. Chiara Briganti and Kathy Mezei (2013) consider the domestic space, as does Mary Douglas (2013), who presents the idea of the home as a 'protohierarchy'. The work of Belgian filmmaker Chantel Akerman (1977) is discussed in relation to how she approached filmmaking. Giuliana Bruno's (2002) theories on discourses for art, travel and geography are discussed in relation to the work of Chantel Akerman and my own creative practice.

Judy Wajcman (1997) examines feminist theories of technologies. Margot Lovejoy (2004) contextualises the foundation for the introduction of the home computer. Donna Haraway's (1984) *Cyborg Manifesto* deployed the metaphor of a cyborg to challenge feminists to participate in politics using the medium of the Internet, which at the time was seen as a new and exciting space. How this challenge was taken up by feminist collective's such as VNS Matrix and Pussy Riot, is also discussed in this review.

Caitlin Jones (2010) asks what happens if the studio is a laptop? The work of Lynn Hershman Leeson (2017), an artist long associated with technology is discussed. Particular interest is paid to Hershman Leeson's (2017) notions of surveillance and the boundaries between public and private space. The relevance to my creative practice, lies in how Hershman Leeson utilised technology for both the creation and dissemination of her practice. This is followed by a discussion on the works of photographer Nan Goldin (2013).

The review will consider Alan Kay and Adele Goldberg's (1977), vision of a 'Dynabook'. It will then discuss software and new media. Lev Manovich, Professor of Computer Science at City University NY, provides two key texts *The Language of New Media* (2001) and *Software Takes Command* (2013) both of which further my understanding of new media. In these texts, written just over a decade apart, Manovich (2001, 2013) analyses the computer as cultural metamedium and provides a history of software, allowing us to consider how the iPad fits into Manovich's (2001, 2013) definition of new media. Terry Flaxton's paper *HD Aesthetics* (2011) suggests new media offer new aesthetics through high definition technologies.

Jay Bolter and Richard Gruisin (1999) argue that nothing is new, everything is a remediation of the past. Nicolas Bourriaud (2002) discusses how a number of artworks have been created on the back of other artworks, arguing that more artists interpret, reproduce and use works by others. Edward. S. Robinson (2011) discusses William S Burroughs (2011) and Bryan Gysin's (2011) 'cut-up' technique, which I suggest is a forerunner to digital post-production. Co-authors Martin Lister, Jon Dovey, Seth Giddings, Iain Grant, Kieran Kelly (2009) ask if new media can transcend its historical context, they consider if new media do have 'unique essences' (2009: 11). Helen Nissenbaum (2015) offers a discourse on how the social networking site 'Facebook Inc' can be seen to help facilitate a truthful online presence.

1.2 What does it mean to be a Feminist Artist?
1.2.1 The Personal is Political

To be a feminist artist, an understanding of the historical context of feminism is needed, therefore, this literature review will provide a brief overview of the recent history of feminism. It then discusses a selection of artists and theorists that influenced my creative practice. The 1970s is used as a historical starting point, as for many it represents the beginning of a cultural change in attitudes towards the empowerment of women. I chose a specific chapter in our recent turbulent history when women artists began using technology to question their role within society, because this is a significant point in women's liberation.

The metaphor of waves is used to describe a historical framework in which to place feminism at different points in history, as described by Martha Weinman Lear in a 1968 article *Second Feminist Wave*. I have taken the advent of second-wave feminism as the starting point to discuss issues raised by feminism, to contextualise the background for my research of how women utilised technologies available to them for the production and dissemination of artworks. In the United Kingdom first-wave feminism began at the end of the 19th century and into the early part of the 20th century. Here the main focus was on gaining the right for women to vote. According to Weinman Lear (1968) second-wave feminism began mid-1960s and continued throughout the 1970s and into the 1980s. Issues around sexuality, family, the workplace, reproductive rights, domestic violence and marital rape were openly debated. Feminist activists and artists campaigned for equal rights, pay and opportunities.

Feminist groups, both in the United Kingdom and in America through protest, activism and rallying, in part, actualised their goals gradually through legislation. In the United Kingdom women achieved levels of equality through the Equal Pay Act in 1970, followed by the Sex Discrimination Act in 1975. Thus, meaning that, in statute of the Law, women had achieved a degree of equality in that the law no longer discriminated by gender. However, within a patriarchal society, total equality is still a long way off for modern-day feminists, this is due to attitudes embedded within society rather than legislation.

Feminist and women artists associated with second-wave feminism created artworks that questioned and challenged their roles within society. A second wave of feminist activism started in the early 1970s, feminist artists explored new technologies to make art. Catherine Elwes (2005), now retired, formerly held the position of Director of the Digital Editing Research Programme at Camberwell College of Art, London, examines the history of the video camera and considers its use by artists as a tool for self-expression and as a political tool.

Elwes (2005) discusses the impact of the video camera on the early second wave feminist movement. She provides a detailed history of the video camera, suggesting that the portable video camera changed the artistic landscape for women artists at a time when the oppression of women still dominated society. The video camera presented an unmediated tool that would enable women to convey their message directly to other women.

Early handheld video cameras gave women access to a new technology that did not need a studio space or sophisticated editing equipment. These cameras offered the ability to record and save directly to a video tape, unedited, recordings could be played instantly, enabling new ways for women to communicate. New ways of exploring social and political issues were made possible through documentary style pieces as they incorporated personal and private content. As a medium it was being explored in some depth by artists interested in exploiting its potential as an artistic medium.

A significant exhibition that brought these different elements together is *The Video Show* at the Serpentine Gallery, London (1975). The exhibition showcased a wide variety of video works including: artists' videos, performances, installations, community video and a series of live events. For many of the participants it was the first time their work had been shown in a gallery setting and created opportunities to debate the nature and relationship between Video Art and Community Video. The exhibition deliberately exploited the medium of video in opposition to television and the quieter arts such as painting. According to Webb-Ingall (2015) the exhibition was 'a kind of anti-television with political and artistic ambitions [that] are radical and independent'. Previously this type of art was only seen by small groups and was shunned by galleries and the mainstream.

The video camera did not become part of my creative practice until the 1990s, it was initially (late 1980s) out of my price range. Instead my filmmaking practice began through acquiring second-hand Super 8 camera and 8-millimetre cameras, which I used to create 3-4-minute films, that I then projected and re-filmed. Through a local film group, (early 1990s) I gained access to a U-matic video editing suite and portable video camera. I explored filmmaking, creating short films which were shown at the film group. With my first digital camera, (approximately 2000) I began making short films, which I edited using a basic computer program (Windows Movie Maker). The primary reason for discussing the portable video camera is because of its significance to my creative practice. When I began working with the iPad in 2011, to the present day, I started to explore its filmmaking capabilities.

Figure 3. 'Semiotics of the Kitchen' (1975) Black and white video. Duration: 6:33 minutes. © Martha Rosler.

1.2.2 Martha Rosler: A Feminist Perspective

I became interested in the work of feminist artist Martha Rosler, after being introduced to her work through Catherine Elwes (2005), and feminist theorist Margot Lovejoy (2004). Rosler exploits the affordances of the video camera to create the performance pieces *Semiotics of the Kitchen* (1975), (see figure 3) and *Vital Statistics of a Citizen Simply Obtained* (1977). *Semiotics of the Kitchen* (1975) frames the domestic landscape to critique women's roles within society and Rosler (1975) plays directly to the screen, inviting the gaze of the viewer.

In her performance piece *Semiotics of the Kitchen* (1975), Rosler addresses the symbolic terminology of the kitchen, framing the domestic space in order to critique women's roles in a 1970s industrialised society. In this documentary-style piece, Rosler (1975) plays directly to the camera, challenging the conventions of representations of women in television and cinema at this time, which positioned women as 'to be looked at'. Rosler's (1975) returned gaze disrupts this dynamic and sets the scene for this performative piece.

A single unedited shot features Rosler (1975) playing the role of a cookery show host. She is in a kitchen and is surrounded by domestic appliances. Using exaggerated gestures, she puts an apron over her clothing and proceeds to select kitchen utensils that she then presents to the viewer. Rosler (1975) selects a different kitchen utensil for each letter of the alphabet from 'a' to 't'. Initially she handles the utensils in a calm and considered manner, naming each one as she presents it to the viewer. For the letters f, i and k, she chooses a fork, an ice-pick and a knife, and uses these to perform stabbing motions to the camera. Her gestures become aggressive and her voice changes in tone from calm to disdainful.

Rosler's dramatic gestures and voice transform the original meaning of the utensils. They change from harmless domestic implements, signifiers of the domestic realm, to an expression of violent frustration towards the limitations of domesticity and the oppression of women through conventional roles in society.

For the final six letters of the alphabet, Rosler uses her body to perform the shapes of the letters, again her voice changes, becoming humorous and knowing. In doing this, she signifies that the letters themselves form part of the structures of power, which, in turn can be ascribed to social roles. The piece was intended to be shown on a television monitor, in this way the medium is represented as a tool of women's social and political oppression. In particular this piece generated thinking about how I could capture my everyday and allowed me to draw comparisons between my own circumstances and the (intended) viewer of Rosler's ironic performance.

A second piece by Rosler, discussed in this review, *Vital Statistics of a Citizen, Simply Obtained* (1977), cited in Lovejoy (2004:107) is an example of how feminists applied the medium of video to their work. The piece begins with a black screen and a voiceover commenting on the social standards and body ideals imposed on women. In this performance Rosler slowly undresses, so that all her measurements can be taken by male examiners dressed to look like doctors, she is surrounded by three female assistants. This is followed by a series of still documentary style images from the 1930s of women and children whose statistics have been measured by government officials. Rosler (1977) situated herself as the object to address issues around the objectification of women. In contrast to *Semiotics of the kitchen*, Rosler does not look directly at the camera, instead she positions herself to be looked at, turning the viewer into voyeur, therefore participating in the objectification of women.

Lovejoy (2004:108) argues that this piece does not use the camera as 'objective observer'. I would suggest, what Rosler does is use the camera to challenge the viewer to step back and readdress the conventions of the prolific objectification of women. The piece is cold and clinical, the camera observes, it does not move, it records as the scene unfolds in front of it. Both pieces raised questions of the portrayal of women through the medium of television. Rosler challenged the prevalent sexual discrimination at a time when the objectification of women was seen as an acceptable form of entertainment.

A diverse range of video works came out of the late 1970s, including interactive site-specific installations and performances both conceptual and documentary style. The video camera gave women the first taste of portable usable technology and opened new ways for women to interpret the world around them, as well as new ways to present themselves. The video camera as a portable device that can instantly record moving images, can be seen to share some of the qualities of the iPad that women artists found so appealing, both are tools for creative self-expression and experimentation. To be a feminist artist, to me, means exploring new technologies to create artworks to provoke a dialogue between the viewer and the artwork that question the social and political landscape.

Figure 4. 'Jeanne Dielman' (1975) © Foundation Chantel Akerman/Cinematek.

'

1.2.3   Chantel Akerman: Mapping the Domestic

The domestic landscape is a space that has been much theorised and is of particular interest to this review, because it influenced the subject matter and was the starting point for my filmmaking creative practice. I will discuss domestic space through the idea of the home. For this research, home is defined as the place in which we live, in which we have an emotional attachment. Briganti and Mezei (2013) define the home as 'a construction that enables people to live and interact, to engage publicly or retreat into privacy'. Its nature is primarily private, with its values both personal to the family and determined by culture, class, age and gender. Mary Douglas (2013) theorises the home as a 'protohierarchy' and proposes the home 'is not authoritarian but has authority. It is hierarchical, but it is not centralised' (2013:53).

The idea of the home is one of negotiations between the inhabitants, as discussed by Briganti & Mezei (2013). A space becomes a home through negotiation within the space and by organisation of that space by personal need and taste. Within the space of the home gendered hierarchies exist to differing degrees, spaces are assigned to gender. For this review the space within the home that I have explored is the kitchen, as the kitchen especially is associated with women. However, to define the home, any visualisation developed through creative practice can only ever present a personal perspective.

This research began at time when the idea of the home, for me was a space of conflict, my creative practice reflected this. Turning the camera on myself, I mapped and recorded my everyday routine and, my (then) domestic reality. In parallel to my research, my domestic situation changed dramatically. I moved away from exploring the domestic space, to exploring intimate space as a changing space. Through filmmaking, I began to explore journeys; typically, I would carry my iPad around in my handbag, or carry it round in my hand whilst walking, even strapping it to my body, or just, sticking it to my car window. I saw this creative practice as a mapping of my intimate space in public spaces. This is discussed further in the review of creative practice in this thesis.

Belgian filmmaker, artist and Professor of film, Chantal Akerman (1950-2015), aligned herself with the feminist perspective of 'the personal is the political', a phrase popularized by feminist writer Carol Hanisch in a 1969 essay *The Personal is Political.* Akerman was influenced by European art cinema and structuralist film, which set out to distance itself from the dominant Hollywood-style of cinema.

According to Gidel (1976) structuralist film 'rejected the illusionary nature of film in relation to cinematic space, narrative and characterisation'. Released the same year as Rosler's (1975) video, Akerman's film *Jeanne Dielman, 23 quai du Commerce, 1080 Bruxelles* (1975) (see figure 4), uses the kitchen, as the main setting, as a backdrop to explore issues around femininity and domesticity. In an article by Bergstrom (2015), for the British Film Institute, Akerman called *Jeanne Dielman* a feminist film, she states:

> I do think it's a feminist film because I give space to things which were never, almost never, shown in that way, like the daily gestures of a woman. They are the lowest in the hierarchy of film images. A kiss or a car crash comes higher, and I don't think that it's accidental. It's because these are women's gestures that they count for so little.

The piece, at 3 hours 20 minutes long, follows three days in the life of the main protagonist Jeanne. Over the course of these three days, the audience watch as Jeanne's ordered life falls apart. Playing the role of a widowed housewife and part-time prostitute, Jeanne's daily routines are both habitual and repetitive. Akerman captures Jeanne's everyday so precisely, and in minute detail, as the film progresses, and Jeanne life begins to fall apart, it is shown through examples of her routines breaking down, potatoes being left to boil over, or water being left to run. A prolonged sequence, in which Jeanne peels potatoes, and uses the space of what is traditionally called 'dead time', to show sequences where nothing appears to happen on the screen. It can also be described as giving the film a liminal quality as it captures the spaces 'in-between'. Akerman particularly focused on capturing moments often ignored by mainstream filmmakers.

Jeanne appears to treat prostitution the same way as she treats housework - a chore to be carried out. It is Akerman's use of film to explore connections between private and public space and how she caught the undramatic on screen and in doing so gave concrete meaning to women's work that is important to this research. Akerman's work is included in this literature review as it has influenced the way I look at how filmmaking can be used to capture moments of the everyday. These moments would have previously been ignored within my creative practice, and I too have explored the domestic space through filmmaking.

1.2.4 Mapping a Filmic Discourse

Next this literature review will move its focus from the domestic space, to literature on public space in particular on how film can be used to explore discourses on travel. Giuliana Bruno (2002) discusses how contemporary spatial theories exclude women, as do discourses on travel, she offers a new discourse that brings together theories on art and travel from a feminist perspective.

Bruno's (2002) atlas connects emotion to movement and in turn connects journeys to cultural movements. Bruno's theories use geography to map feminist discourses through film, travel and art. To do this Bruno (2002:85) suggests a theoretical rethinking of 'female subject positioning'. By unpicking gender discourses on the home and travel, Bruno (2002) creates a new feminine narrative that maps a cultural discourse of cinema, travel and art. She (2002:99) discusses how film can be seen as a 'vehicle for reading traces of our inhabitation.... filmic movement is a cultural passage'. In discussing Ackerman's work, Bruno (2002:99) talks about film as a geography mapping a cinematic landscape and suggests that Akerman uses the house in *Jeanne Dielman,* as a site of 'filmic passage' (2002:99)   She argues that in this piece, Akerman (1975) uses film to present cinematic space in a new way through her mapping the domestic landscape and in doing so offered a new discourse for cinema. Bruno (2002:82) suggests:

> Through movement, he or she passes through sequences, narrative stages and experiences of liminality. Cultural and emotional (dis)placements, as well as journeys between the familiar and the unfamiliar, the ordinary and the extraordinary, can produce the liminal zone of a home away from home.

Through filmmaking Akerman plays with concepts of time, exploring the filmic notion of 'dead time', using prolonged scenes to capture the undramatic everyday on screen. In our technocratic society, where time has been separated from natural cycles and instead is a universal standardized measure ruled by the clock. Our daily interactions with technologies enforce the perception that time is passing quicker than we think it does. A metaphor for the speed of modern life is the notion of time as a scarce resource, that is transient in nature and must be captured before it eludes us. To capture this through filmmaking and in contrast to Chantel Akeman who's use of 'dead time' is dramatically slow, I chose to use applications to capture my everyday that visually distort and compress time, whilst aligning myself with the feminist perspective of 'the personal is the political'.

1.2.5   Nan Goldin: The Camera as Diaristic Documentary Device

This literature review will now consider the work of an artist, who fully explored her chosen medium to its potential and created bold stark images that captured her everyday realities. This artist influenced my research and how I used the iPad for my creative practice and the type of images that I created. Photographer Nan Goldin is an artist who used her camera as a diaristic documentary device. She emerged in the 1980s as a documentary photographer who captured a darker side of American society. Goldin's (2013) diaristic documentary style focus on the dark urban underbelly of American society; her subjects include drag queens, AIDS victims, sex workers and drug takers.

As part of her practice Goldin immersed herself within the culture she wanted to capture through her work. Goldin also used her own body to create dark brutal self-portraits, such as, *Nan, One Month After She'd Been Battered* (1984). Using photography as a visual diary, her subjects became her friends, and tragically she watched and caught on camera the devastating effects of AIDS.

A project from this period (1979-86) *The Ballad of Sexual Dependency*, is a collection of photographs capturing the city's gay and drug taking subcultures, prostitutes and hustlers (Reeves, 2013). Goldin defines this body of work as her main contribution to art. Although issued in the form of a book, it is shown as a slideshow, alongside songs, and texts of the songs, which Goldin (2013) says act as a narrative of the film.

Goldin (2013) began showing the collection as a slideshow in the early 1980s and has edited and changed the format over the years, its most recent inception being for The Museum of Modern Art (2013). Goldin's (2013) use of the diaristic documentary style of photography, influenced how I think about the iPad, as a virtual studio, and how it can be used in a diaristic capacity to document and visualise my space.

1.3　Is the Computer a Viable Artistic Tool?

I will discuss first, the historical context from which the iPad emerged and frame a discussion around the identity of new media. This is important to this research as it contextualises the iPad's place in contemporary culture and makes explicit my argument that the iPad is a new media device free of remediation. The arrival of the iPad changed the digital landscape for artists. The iPad was developed by the team at Apple Inc and in simple terms, Apple Inc introduced the first iPad in 2010 on the back of the ground-breaking work initiated by the team at the Palo Alto Research Centre (PARC). However, one area in which Apple and Steve Jobs (1955-2011) excel and should be credited for is that they built on the innovative work started by the team at PARC, by recontextualising PARC's ideas of the Graphical User Interface (GUI) to the format of a tablet know known as the iPad.

In a paper delivered by Alan Kay and his associate Adele Goldberg (1977) *Personal Dynamic Media,* the vision of the Dynabook is discussed as a creative tool, both for artists and musicians. Kay and Goldberg (2013:57) worked for Xerox Palo Alto Research Centre (PARC) and were part of the team that developed the Graphical User Interface (GUI). The Dynabook is described as 'a dynamic medium for creative thought' (Kay and Goldberg 1977:31). Kay and Goldberg's (1977:40) vision was for a single machine, notebook-sized, that would enable creative use of the computer and describe it as 'a machine designed in a way that any owner could mould and channel its power to his own needs, then a new kind of medium would be created'.

While other computer scientists were developing similar ideas, before the development of the GUI, a primary focus was on science and business. Kay and his team saw the potential for creative media. The term 'metamedium' was coined by Kay and Goldberg (1977:31) to represent something totally new. The team had developed creative applications for making music, drawing and painting, and word processing among others. Before this artists and musicians had worked with computers and computer scientists since the 1950s, but these early computers were designed with a specific job in mind; a computerised keyboard or animation or painting. It was the team at PARC that took all the different elements and put them in a single machine. The 'Interim Dynabook' was the first model to bring different applications into a single device (1977:32).

Kay and Goldberg's text (1977) breaks down all the different elements of the Dynabook's functionality; from different fonts, to the editing of text and images, drawing and painting, music and animation. Lev Manovich (2013) credits the team at PARC for forever linking the computer into being a simulation of old media, referring to Bolter and Gruisin's (2000) theories of remediation, which is discussed later in this text.

Manovich (2013:58) describes the digital computer as a 'remediation machine', whereas Kay and Goldberg (1977:38) discuss notions of simulation and of transparency, their vision was one of control over the computer, one that could be added to and that would simulate old media but would be a new medium with new properties. Whilst it took over three decades before the iPad emerged and Kay's vision was fully realised, it would take even longer without Kay being properly recognised as the visionary that he was. That accolade went to Apple's Steve Jobs. However, Kay and Goldberg's vision for the Dynabook is surprisingly accurate in terms of the iPad's capabilities.

1.3.1   Mapping New Media

Lev Manovich (2001) discusses the historical framework from which new media has emerged. He considers how new media depends on the conventions of old media and the ever-changing flow of software and hardware that shape the cultural landscape. He uses concepts from film and cinema theory, art history and computer science to explain his theories of new media and to show how new media is still reliant on working within the cultural logic of representation.

In explaining software performance as part of the everyday, Manovich (2001) suggests that through processes such as opening a document, streaming a film, or taking a photograph, the user becomes part of the performance. Manovich (2001:11) proposes the term 'software' covers a wide range of tools including: search engines, mapping applications, blog and auction tools, instant messaging, and applications for film, photography, painting, printmaking and drawing.

Manovich (2001) proposes new media can be split into two paths: the first is that new media pieces create individual interfaces to a multimedia database and second is that new media is created by navigation through spatial representation. A key concept explored here is that 'to create is to navigate through both media and medium' (Manovich, 2001:15). Media is now both programmable and modular in structure. There is an element of automation in the process of creation and the potential for change in new media art is infinite.

A turn of phrase Manovich uses is (2001:19) 'cultural transcoding' to describe separation into a cultural layer which follows the principles of narrative and pictorial representation, and a coding layer which includes coding principles, file sizes, computer language and data structure. The layer's influence each other and help to affect change. In effect this means that a convergence of two separate trajectories of computers and media are now combined in a single device and because of this convergence a new culture has emerged. Manovich (2001:33) states that:

> The database becomes the centre of the creative process in the computer age representing the world as a list of items, with new media; the content of the work is separate from the interface.

It has been argued that new media artwork is rarely original, as the elements of its making are pre-programmed into the computer and the user is simply following paths already created. Bourriaud (2002:19) argues that artists are 'agents' playing their part in a cultural revolution and suggests 'Art can be a form of using the world, an endless negotiation between points of view'. Bourriaud (2002) discusses how contemporary artists interpret, reproduce and use works by other artists to create their own artworks, believing that new interpretations are original, and that postproduction is the art of rearrangement.

Bourriaud (2002) theorises that postproduction artists create 'original pathways through signs,' (2002:19), thus side-stepping the argument for the discourse of originality. By reframing consumption to terms of 'use' Bourriaud is implying that consumption is an active rather than passive activity. He also includes, examples of remote controls and computers and suggests these are tools that allow editing and reconstruction and thus are part of the act of postproduction.

It can be claimed that new media artworks are never finished as individual artworks can be accessed at any time and be subject to unlimited changes and reinterpretations. However, I would argue this position does not consider the user/artist decision-making, not only taking unique paths to create original artworks, but also making the conscious decision on when a piece is finished. Each image creates its own unique database, which in turn allow random access to different points in the database.

Manovich (2001) makes a link between the digital and the haptic. He uses the context of art history to explain his ideas about virtual space. Referring to Panofsky's essay *Perspective as Symbolic Form* (1925) in which he compares Greek art to Renaissance art to discuss different conceptual spaces, Manovich (2001) suggests that computer space can be similarly compared because it lacks the sense of space as a medium. It misses the sense of perspective. Manovich (2001:255) argues that 'what is missing is the sense of the medium'. I would disagree with this view of computer space and argue that virtual space itself is a new medium that can be manipulated, compressed and streamed.

The focus of Manovich's (2013) second book on the subject, asks what is media after software? Manovich (2013:7) asserts that 'Media is always in a state of flux. Media is the glue that binds everything together'. He is interested in the software that controls the tools and proposes a set of formal categories through which to understand cultural software. This includes software that is used to access, create and modify cultural objects for online display, and communication, for making interactive or adding metadata to existing cultural objects. According to Manovich (2013:7)

> Software has become our interface to the world, to others, to our memory and our imagination, a universal language through which the world speaks, and a universal engine on which the world runs.

Manovich pulls apart what media software is; how it connects to hardware and what the cultural implications are. He argues by understanding software it will empower us and help to clarify our understanding of what he calls the 'Software Society' (Manovich, 2013:7). This is of importance to my research as it furthers my understanding of the cultural implications of technologies.

Manovich (2001) claims new media can be seen in part as a cultural shift from creation to selection and that new media can be seen as a clash between narrative and database. I would argue this changed with the iPad. Although selection is part of the process, creativity is enabled through the tools offered. New media art, specifically artworks made on the iPad creates a narrative that is accessed via a database, but it does not stifle the creative process, demonstrating this is an aspect of my creative practice research.

1.3.2   New Aesthetics of the Digitised Screen

Terry Flaxton's (2011) paper *HD Aesthetics* discusses how higher resolution technologies can be seen to challenge academic conventions around digital image making, and to reinscribe it as a material process. He offers a brief summary of the history of high definition technologies and a definition of how we perceive colour, in order to suggest that by its nature we are more engaged by a high definition than a low-resolution image. Flaxton (2011) argues that the way technologies have evolved mean that the Internet and digital media offer a new aesthetic. This is explored in the review of creative practice of this research.

1.3.3 The Issue of Remediation

Where Manovich talks about a convergence of two separate trajectories of computers and media that are now combined in a single device to create a new media, Jay Bolter and Richard Grusin (1999) offer their theories of mediation for the digital age. They argued that new visual media achieve cultural substance through a refashioning of earlier media, such as photography and painting. They call this process 'remediation' (1999:11) and use this argument to discuss how multimedia platforms before digitisation refashioned one another, for example photography remediated painting and television remediated film.

Bolter and Grusin (1999:21,31,44) explain their theories in terms of immediacy, hypermediacy and remediation. These key terms underpin their theories, by using 3D virtual reality, which immerses the viewer in a three-dimensional space free of interface, to explain the term immediacy. The relationship to the content of the medium is immediate and immersive, creating an interface that is transparent in its immediacy.

They argue that the logic of immediacy does not take away from the viewer, and that they are immersed in a representation. The viewer understands it is not the thing it represents but is able to allow a mental discrepancy between what they know and what they are seeing. (1999:31) They explain hypermediacy as representational practice that is evident in the window-style of web pages, desktop interfaces and video games, suggesting hypermediacy has a cultural logic to it. A central argument is that new media alternates between transparency and opacity and the premise of the book is that nothing is new, it has all been done before.

They contend that remediation occurs as each new medium appears which promises to reform its forerunners, similarities inevitably lead to the conclusion that the new medium is not new but a refashioning of what has gone before. Old media becomes the content of each new media form. Bolter and Grusin (1999:11) assert that 'Remediation did not begin with the digital age; we can identify the process through the last several hundred years of western visual representation'. According to Bolter and Grusin (1999) computers of the late 1990s were the only new kind of media experience, combining television and computer technologies and bringing text, sound, animation and video together, in any combination.

Manovich (2001) challenges Bolter and Grusin's remediation theory, claiming that 'computers surpass the mere remediation of previous mediums' (2001:102). He asserts that, the computer is a metamedium whose content encompasses 'a wide range of already existing and not-yet-invented media' (2001:102). I would argue in this context the iPad is not only transparent in its immediacy, the sum of its parts is more than the metamedium as envisaged by Kay and Goldberg (1977), it is a virtual studio.

Co-authors Martin Lister, Jon Dovey, Seth Giddings, Iain Grant, Kieran Kelly (2009:74) consider the argument that 'for a medium to be genuinely new its unique essence has to be discovered in order for it to break itself free from the past and older media'. Asking if new media can transcend its historical context, they consider if new media do have 'unique essences' (2009:78). They suggest that unique characteristics are revealed through time and exploration, however they present the view that most users of new media technologies do not push them to their full potential.

Referring to the theorist Gene Youngblood, who, writing in 1984, looked towards a future when affordable computers were both available to the everyman, Lister et al (2009:78) state that 'the full aesthetic potential of the computer simulation will be revealed', therefore implying that in the future the gap between the potential and the actual performance of media will be fully realised.

Bolter and Grusin (1999:50) argued that for a medium to be significantly new it must make a radical break with the past. Referring to 1961 essay *Modernist Painting* by art critic and theorist Clement Greenberg, in which Greenburg (1961) attempted to identify paintings placed against the backdrop of the age of reproduction. Lister et al (2009) suggest that new media, like painting, in the early 1960s, was seen at the time to be cutting edge.

Greenburg's primary interest was in painting, arguing that painting needed to break away from its narrative and illustrative function and concentrate on colour and surface. Greenburg (1961:7) states 'that each new phase of Modernist art should be hailed as the start of a whole new epoch in art, marking a decisive break with all the customs and conventions of the past'. In comparing new media to Greenburg's depiction of modern art, Lister et al (2009:79) argue that the jobs of all artists are to 'search for the fundamental essence of their medium, stripping away all extraneous factors and borrowings from other media'. This is what I have attempted to do with this research into the iPad. It is simultaneously a new media and medium for artists, free of remediation of other cultural conventions, with its own unique essence.

1.4   How has Computing Enabled Creative and Artistic Practice?

1.4.1   Cutting up the Cut-Ups

Whilst Manovich (2001) suggests that new media artworks are rarely original, Bourriaud (2002) suggests otherwise, offering a discourse for originality through postproduction. It could be suggested that the art of postproduction existed before digitisation. The cut-up technique can be traced back to the Dadaist Movement which explored techniques of collage to evoke the unexpected through chance. Edward. S. Robinson (2011:6) discusses William. S. Burroughs and Bryan Gysin's *The Third Mind* (1978) which was a collaborative piece between the two authors.

The text contains short fictional pieces and poetry using the cut-up technique. The premise of the cut-up technique is to create or invent new text from the physical destruction of existing texts (Robinson, 2011). Gysin approached the technique through playfully cutting up his own texts, however it was Burroughs who saw a method of working that would subvert the formal narrative of text and used it to explore ways of creating new narrative structures.

Burroughs (1959) exploited the technique in his most notorious text *The Naked Lunch*. The book follows the main protagonist 'William Lee' and is structured as a collection of loosely interconnected narratives that can be read in any order. Robinson (2011) explores the history of the method from a theoretical perspective and how it has impacted on contemporary culture in the digital age. Robinson (2011:43) suggests that use of hyperlinks and cut and paste can be connected back to Burroughs' use of the technique.

Hyperlinks change the linear narrative structure of the digitised page navigating through digital pathways to new destinations. However, I would argue while the structure of the narrative might change, it is not in the same way Burroughs saw the dismemberment of text to create new meanings. The method of cut and paste can be used to explore and challenge both the written word and now the visual language of film in the digitised age. This is discussed further in the creative practice of this thesis. The iPad is a tool of postproduction, its editing capabilities facilitate new creative practice.
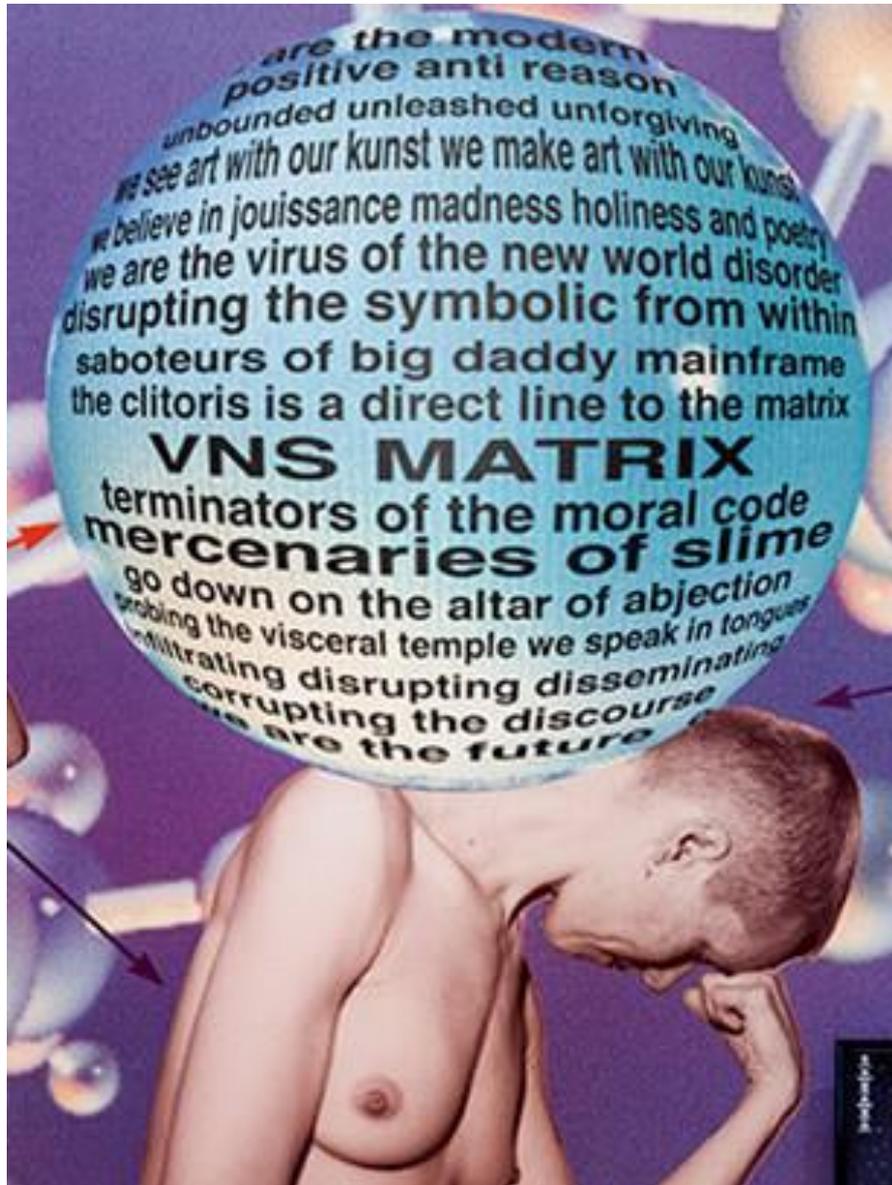
Figure 5. VNS Matrix. (1991).

1.4.2   Technofeminism in a Networking Society

This literature review will briefly discuss the arrival of the home computer and the Internet, this is discussed in more depth later in this review. This section uses the arrival of the Internet, as a discussion to introduce a selection of feminist artists and theorists, who believed the Internet could be used as a space where women could use technology as a tool for dissent against a cultural mainstream. Judy Wajcman (1997) *Technofeminism* discusses feminist theories of technologies and, suggests theories between women and technology have fluctuated between pessimism and optimism. She argues that the digital era cannot represent feminism from one perspective, instead it operates from a series of interconnected discourses. Wajcman (1997:11) suggests:

> Beneath a discourse of a gender-neutral sociotechnical network there is a frequency to be found in the hidden agency of new social movements, many of which are feminist in character, or have been inspired by feminism.

The history of the Internet can be traced back to the 1950s, with the development of electronic computers. From this starting point, teams of computer scientists contributed to the creation and development of both the World Wide Web and the Internet. The Internet is a system of networks, the World Wide Web is the system from which the Internet is accessed. It was not until the early 1990s that the Internet was introduced to the United Kingdom.

Margot Lovejoy (2004) contextualises the foundation for the introduction of the home computer in the late 1970s and the Internet in the early 1990s. She considers how the introduction of the computer changed the way we interact both in the domestic environment and with the world around us. This was perpetuated through the introduction of the Internet, which established the sense of connectedness that blurs both interior and exterior boundaries which (now) provides immediate access to what is seen and experienced.

Since Lovejoy (2004:115) claimed 'through technology our brains are able to process vast amounts of information', perceptual distraction produced by mass media forms including laptops, game consoles, iPad's and tablets have become a norm. An early visual technology to disrupt time and space in the domestic environment was the arrival of television. This represented a fundamental compression of both space and time and changed the dynamics of the home environment.

The arrival of the home computer, and the introduction of the Internet represented the largest disruption to the domestic environment in the latter half of the 20th Century. This disruption can be seen in terms of changing the boundaries between domestic and public space in a way video or television could never achieve. The arrival of the Internet changed the boundaries between private, domestic and public space. Wi-Fi connectivity gave us the ability to roam with our devices, which disrupted the boundaries in new ways. Using these mediums, we can become immersed in a private digital 'bubble' whilst physically being in the most public of spaces.

By the early 1980s the arrival of the Internet was already being theorised as a new space ripe for female intervention, long before its arrival in the U.K. Feminist theorist Donna Haraway (1984) was the main protagonist calling for female intervention in new technologies. Though in its infancy, she saw the new technologies of the Internet as a new ungendered space. Haraway argued (1984:16) that 'The cyborg is a creature in a post gender world'.

She deployed the metaphor of a cyborg to challenge feminists to participate in politics across the then new medium of the Internet. Advocating affiliation through affinity rather than gender, Haraway's (1984) key idea of the cyborg is that it signified a challenge to conventional politics that could be used to explore and blur boundaries. Haraway (1984:17) asserts 'The cyborg is a kind of disassembled and reassembled, postmodern collective and personal self'. Haraway's (1984) manifesto was a call to arms by embracing the new technologies to make waves in cyberspace.

One group who took up this challenge was the Australian feminist arts collective VNS Matrix. Founding members Josephine Starrs, Julianne Pierce, Virginia Barratt and Francesca da Rimini (1991) published their *Cyberfeminist Manifesto*. Interviewed by Claire Evens for *Vice* an online magazine (2014), their work used the Internet to disseminate their coding, they built websites and created interactive CD-ROM games and built web-based multimedia artworks.

The focus was to question the relationships between women and technology, disrupting the discourses of control in cyberspace. Calling themselves the 'virus of the new world order' (Starrs et al, 1991). VNS Matrix believed the World Wide Web was a new space where creative experimentation would bring together a global community of like-minded artists. Virginia Barratt (2014) asserts that in its infancy 'The technological landscape was very dry, cartesian, reverent'. VNS Matrix described themselves as 'techno-utopian thinkers' (cited in Barratt, 2014) who like Haraway (1985) saw the World Wide Web as a space ripe for female intervention.

In comparing the Web to feminist groups of the 1970s with their systems of networking, Evens (2014) argues that VNFS Matrix's experimental work attempted to deliberately subvert gender conventions. Working with photography, sound and video to create installations, events and interactive works, imagery and propaganda distributed through the Internet, they explored issues of control within cyberspace, and through their output they achieved what they set out to do - that was to make waves and garner attention in cyberspace relevant to feminist issues.

Pussy Riot a Russian feminist punk rock protest group based in Moscow, entered the realm of public consciousness in 2011 and can be seen as direct descendants of VNS Matrix, who described Pussy Riot as declining to be (2014) 'clean and proper'. VNS Matrix disbanded in 1997 but occasionally still work together. Interviewed by Evens (2014), Barrett come across as pessimistic asking and answering the question herself: What happened to Cyberfeminism? (Barrett, 2014) 'The brave new virtual world were promises that were empty. New strategies needed to be developed…. the idea of a movement was no longer relevant'.

From Haraway calling for female intervention in new technologies to collectives such as VNS Matrix and Pussy Riot, the internet has been used as a tool for the dissemination of ideas, and in this context the idea of cyber space as a space for dissent against a perceived male dominated space. This is important to this research because as it shows the Internet can be used as a space to explore feminist discourses.

1.5   Does Networking Provide New Ways of Disseminating Art?

The rise of social networking sites such as Facebook Inc, opened new ways of global social interaction. Facebook Inc is the primary social networking platform that facilitates the dissemination of new media iPad Art that I have researched. Two key changes have impacted on how we use the Internet. The first, social networking sites, and the second change being the arrival of Wi-Fi and 3/4G connectivity. This gave us the freedom to roam whilst connected to the Internet with our devices.

Helen Nissenbaum (2015) considers how social networking sites such as Facebook facilitate a more truthful online presence. Nissenbaum (2015:3) discusses issues around privacy and argues that the use of social networking sites such as Facebook facilitates a more honest portrayal of ourselves online. However, she suggests whilst Facebook's privacy policies are quite clear, not all users fully understand its information sharing practices.

In this essay Nissenbaum (2015:3) explores the idea that pre-Facebook individuals were inclined to project a less truthful identity. This is in part because early usage of the Internet facilitated a more 'constructed projection of the self' (Nissenbaum, 2010), an example being the game 2nd Life in which gamers created an avatared, animated version of themselves. The use of timelines that overlap with other users helps to project a more truthful identity.

In this context, the virtual worlds of social networking sites can be seen to create innovative conceptual spaces, with original ways of interacting across social and global borders. Within this innovative ethical space for new media art practice, new codes of digital ethics have emerged, which includes the artist being honest in how the work was created. This is discussed further in the case study of other creative practitioners.

1.6   What Does it Mean to be an Artist Today?

To be an artist today is to have instantaneous access to global networking. The iPad enables art works to be created and disseminated across global platforms with a shared digital synergy. Historically the laptop preceded the iPad, which changed the production and dissemination of artworks. Describing the traditional artist's studio as a physical site of art production, an article by Caitlin Jones (2010) asks what happens when the studio is a laptop? Jones (2010:3) discusses what she terms 'post studio art; artists working with digital forms and online environments'. A main point of this article is how the Internet has facilitated a more collaborative approach between artists and the dissemination of artworks.

Jones (2010) refers to *Nasty Nets* (2007:4) as an example of artists who set up a collaborative online collective to disseminate new media art and as a space to discuss ideas and instigate artistic collaborations. This article introduces the work of Lynn Hershman Leeson, which is featured as a part of the online exhibition *Net Art Anthology* (2017) on the Rhizome website. Hershman Leeson's *Dollie Clone Series* (1995-2016) uses technologies to explore boundaries between the virtual and physical world. The work came about in part by the failure of technology to work at an earlier exhibition, which set the artist off in a different direction (Hershman Leeson, 2017).

Early webcams often used mundane subject matter, an example being a webcam set up on a coffee pot at Cambridge University (1991) which went viral. The introduction of consumer webcams (1994) enabled Internet users to begin experimenting with sharing their own lives via webcam. Jennifer Ringley, a student at the time, launched *JenniCam* (1996), which also went viral and achieved notoriety as the first person to put her life on screen.

Hershman Leeson's (2017) work turned the idea of being the subject of surveillance around to be the surveyor. Using dolls, with video cameras inserted into their eyes, one doll has one eye taking a photograph every 30 seconds, it then uploads it to the Internet, whilst the other eye streams live footage, another doll continually streams directly to the Internet. Online users could click on the dolls eyes and survey their surroundings. This piece plays with notions of surveillance, gender and the self and the boundaries between public and private space.

Since Haraway's (1991) call to arms to embrace the new technologies, the Internet has been exploited as a space for dissent, as a collaborative space between artists, and a space for dissemination. To me, to be an artist today means utilising the iPad as a studio and online platforms for the dissemination of new media artworks. To be a feminist artist today is to situate yourself within a contextual framework to explore and exploit innovative technologies to create artworks that question the social and political landscape.

Chapter II

2 New Creative Mobile Practitioners – Displaying, Sharing and Critiquing

2.1 Are Other Artists Using the iPad in their Creative Practice?

Introduction

In this case study, I explore how the iPad has facilitated new artistic communities. The methods I appropriated for this investigation, included researching the historical framework from which new online artistic communities have emerged. It also involved a more detailed examination of some of the issues raised through this research, including what is the role of digital integrity in a new developing creative practice. Finally, I interviewed artists, from two online artistic communities: 'The Mobile Arts Collective' and 'iPad Artists' and set up a blog with my peers.

2.1.1 Online Galleries

The introduction of the iPad (2010) and its applications set in place a series of events, although I have chosen to focus on a simplified version of these events. With the iPad comes access to the App Store, beginning with the downloading of an artistic application which thereby allows immediate access to upload work to an online gallery associated with the application. I have chosen two artistic applications to discuss, these are the 'SketchClub' and 'iColorama' applications. A commonality of these two applications is the integrated online galleries associated with them; membership and access to the online galleries is automatic with the purchase of the application.

A primary reason for choosing the 'SketchClub' application is because of its ability to record the practice of drawing and painting live. The process of digital drawing and painting can be watched by other members or recorded and uploaded with the finished work to the integrated online gallery. The online gallery allows other members to rate and comment on work offering instantaneous feedback. The reason for choosing the 'iColorama' application is because it is predominantly a photographic image manipulation application. Its inclusion is primarily to highlight differences between applications as tools explicitly for drawing and painting and applications for image manipulation.

From these examples, two distinct communities have developed, whilst there are crossovers between the two, the main difference is in how they use artistic applications. Artists associated with the SketchClub application have the option to start with a digital blank canvas, record the work as it progresses, then upload the recording with the finished image to the online gallery. Whereas, artists associated with the iColorama application, focus on digitally enhancing photographs through applications for artistic effect. This separation highlights the differences between artists who are using the iPad and its applications as part of new creative practice, and artists who focus on photographic image manipulation.

2.1.2 Digital Integrity

Whilst photographic image manipulation is a form of creative practice, deception around image manipulation can be seen to take away from the legitimacy of other digital practice, specifically drawing and painting. The expectation is that members of these online artistic communities are honest about how their image was created and what applications were used. In the case of photographic manipulation, a key consideration is to report the origin of the source image. The affordance of recording work in progress and 'live' can be seen to act as a legitimiser of iPad art. This links directly to the role of digital integrity.

What is Digital Integrity?

Digital integrity is an ethical code of practice that has emerged with new online artistic communities. The ability to record drawing and painting in progress is an important factor in considering the role of digital integrity in new iPad art. Other factors include:

- The device used to create the image should be named.
- The application/s used to create the image should be named.
- The image should be identified as original or altered and labelled accordingly.
- Copyright should not be infringed.
- The image should not breach privacy or moral rights of a subject(s).
- The image should not breach any ethical or legal standards.

Rapid developments in technology have changed the visual landscape through new media digital art and our online social interactions. These developments are culminating in a culture of shared digital synergy. Contemporaries and peers have created innovative online interactive artistic communities with the iPad as their main creative tool. Distribution of digital artworks primarily via social networking platforms has facilitated new ways of interacting, allowing instantaneous feedback and creating new online relationships.

These ways of distribution have created a virtual global art gallery that accelerates the distribution of new media iPad art. My research showed that iPad application galleries were part of the initiation of these new online communities, from which other online artistic communities have emerged. Digital integrity plays a significant role in the ethos of these communities.

2.1.3   Online Communities

For this case study, I have focused on two artistic online communities. These are 'iPad Artists' and 'The Mobile Arts Collective'. The reason for choosing both these groups is because they promote the iPad as a creative tool that is enabling new creative practice. Both groups are made up of a diverse range of professional and non-professional artists, age groups, ethnicities and nationalities. These groups are accessed via Facebook Inc. They are closed groups; to join artists are nominated by another member of the group. A set of rules is displayed in the information section of each group. There is a crossover of membership with both groups.

Feedback is instantaneous and encouraged. Members tend to belong to several online art groups, each piece of art is often shared across different platforms, for example a piece made with the 'Procreate' application might be uploaded to the Procreate gallery, then to both the iPad Artists and The Mobile Arts Collective forums. Artworks are often uploaded with an accompanying recording, along with the name of the device and the applications used. This helps to facilitate the legitimacy of the work. Digital integrity is important to both groups.

2.1.4   iPad Artists

iPad Artists was established, by Liz O'Beez, in 2013 to initially share work among friends. In November 2016, it had 2996 members and the group has grown steadily over the past three years. The focus of the group is sharing artworks created on the iPad. Other mobile devices are allowed but must be named along with the application used to create the artwork. New member requests and referrals are only accepted after a member of the administration team have checked the applicants Facebook page for artworks and to check the applicant is an artist. If the team are unsure membership will be denied. This sets 'iPad Artists' apart from other online communities who do not have such stringent terms of membership.

2.1.5 The Mobile Arts Collective

The Mobile Arts Collective (TMAC) was founded in 2012, and as of November 2016 had membership of 1297 artists. The TMAC is a closed group and joining is by request of another member. The group was set up as a collective and its primary focus is to share information and artworks that have been created using a mobile device. For this group a mobile device is defined as any device that you draw directly on the screen, it is self-contained and portable. All works created must be made on a new mobile device. Examples of acceptable devices include but are not limited to the iPad/iPhone or other android tablets/phones. The collective has held summits in Palo Alto, California for the past three years (2013-16). The summits are a chance to showcase iPad art, with artists giving talks and facilitating live digital painting sessions. The 2016 summit showcased the work of over 70 artists chosen from 800 submissions.

2.1.6 Questions

To support my claim that the iPad and its applications is a portable virtual studio that facilities new creative practice, I used the member forums to approach both groups, I designed two research questions that I posted online (4 August 2016). I was interested in finding out when members used their iPad's. I would suggest its portability is a feature that opens new timeframes for artists to work in. The ability to create artworks anywhere, without the need for a physical studio is explicit in this thesis, as an affordance of the iPad. I wanted to find out if other artists valued its portability.

The second question I asked was to find out how the iPad had impacted on members' artistic practice. Members of both groups answered fully and comprehensively. Overwhelmingly the answers received were both positive and insightful. It could be argued that the respondents from these groups are committed to using digital methods as part of their art and therefore likely to praise the iPad's potential. Answers have been anonymised. There follow sample answers from members of both groups.

Question 1:

Do you value the iPad's portability: when would you use your iPad to make artworks?

Question 2:

Would you be involved in art practice if you didn't own an iPad?

I. I discovered several tools in those early days and I began to identify a creative work-flow that transcended anything I had ever been able to accomplish on the previous generations of computers. The portability and the tactile interface made the iPad my ideal tool for artistic expression. I would have to say that I would be compelled to create whether or not I had an iPad, but there is no question that it has helped me to accomplish my creative vision far more effectively than any preceding tool. Because of its portability and interface, it has allowed me to make my artwork without being tethered to a computer and that has provided me the freedom to create during the in-between moments.

II. As to the question of I would still be making art if I didn't have an iPad, YES. Either with my desktop software and Cintiq, pen/ink or acrylic paintings. I will say that the iPad did completely change the game for me though. First, I love working digitally so the iPad just became a limited extension of that at first. But now that the iPad has become more powerful and applications are catching up to desktop software, I find myself doing full work on it alone. But I would have always labelled myself a digital artist before an "iPad artist" if I had to choose but always just an artist first. As far as where I use the iPad: Everywhere!! Whether it's 15 minutes or an hour or two, that's a window to create. And again, having a whole set of tools is more fun to me than just a paper sketchbook.

III. I learned to draw at a very early age, with paper and pencils, and still love it to this day. I also love oil painting on canvas, and now love my iPad with Procreate. Nothing will ever replace the intimacy of a pencil dragging across paper or the experience of painting in oils, so I look at my iPad as another tool in my arsenal - a different one. Digital is great, but it's not a replacement of anything.

2.1.7 Interviews

In this case study, I have investigated if the iPad and its applications is a portable virtual studio, that has facilitated new creative practice. As part of this investigation, I set criteria to identify a group of online artists, who used their iPads for their creative practice. I sought these artists through 'iPad Artists' and 'The Mobile Arts Collective'. From June 2014-16, I visited both sites regularly, noting down artists who regularly uploaded artworks and created a strong online presence. From what became a long list, I selected a small group of artists, whom I then contacted, and following ethical codes of conduct, sought and obtained permissions for their participation in this research.

I interviewed several artists, both male and female, although primarily interested female artists' use of the iPad, I spoke to Adam James Butler, a professional digital Fine Artist, a member of 'iPad Artists' and 'The Mobile Arts Collective'. An Englishman who relocated to Mexico, Butler has a traditional Fine Art background, a professional artist who took the move from traditional disciplines to focus on digital fine art, with the iPad at the heart of his practice. His creative practice focuses on traditional artistic subject matter, developed through observational drawing including landscapes, portraits and still life. He is a blogger for the Huffington Post, and was a guest speaker at the 2016 Mobile Arts Collective summit. I was aware of his artworks through my research and contacted him after reading his blog, *The True Heart of the Digital Art Movement.* (2016). I had further correspondence with him, in which he discussed the iPad being at the heart of the digital art movement (personal correspondence. July 2016). He supports my claim that the iPad is a portable virtual studio and sees it as being the market leader in portable devices that are creating a cultural shift in seeing new media art as new creative practice.

> It is only just recently that the movement has started to grow into a recognised and validated community, not with a closed-minded outlook but with an open attitude to change and the sharing of new ideas.

> (Personal correspondence. Butler, 2016).

2.1.8   Individual Artists

Helene Goldberg from Berkeley, California, USA, taught literature at UC Berkeley before eventually changed careers to become a psychologist. Helene is a prolific artistic practitioner, open to experimentation with her iPad.
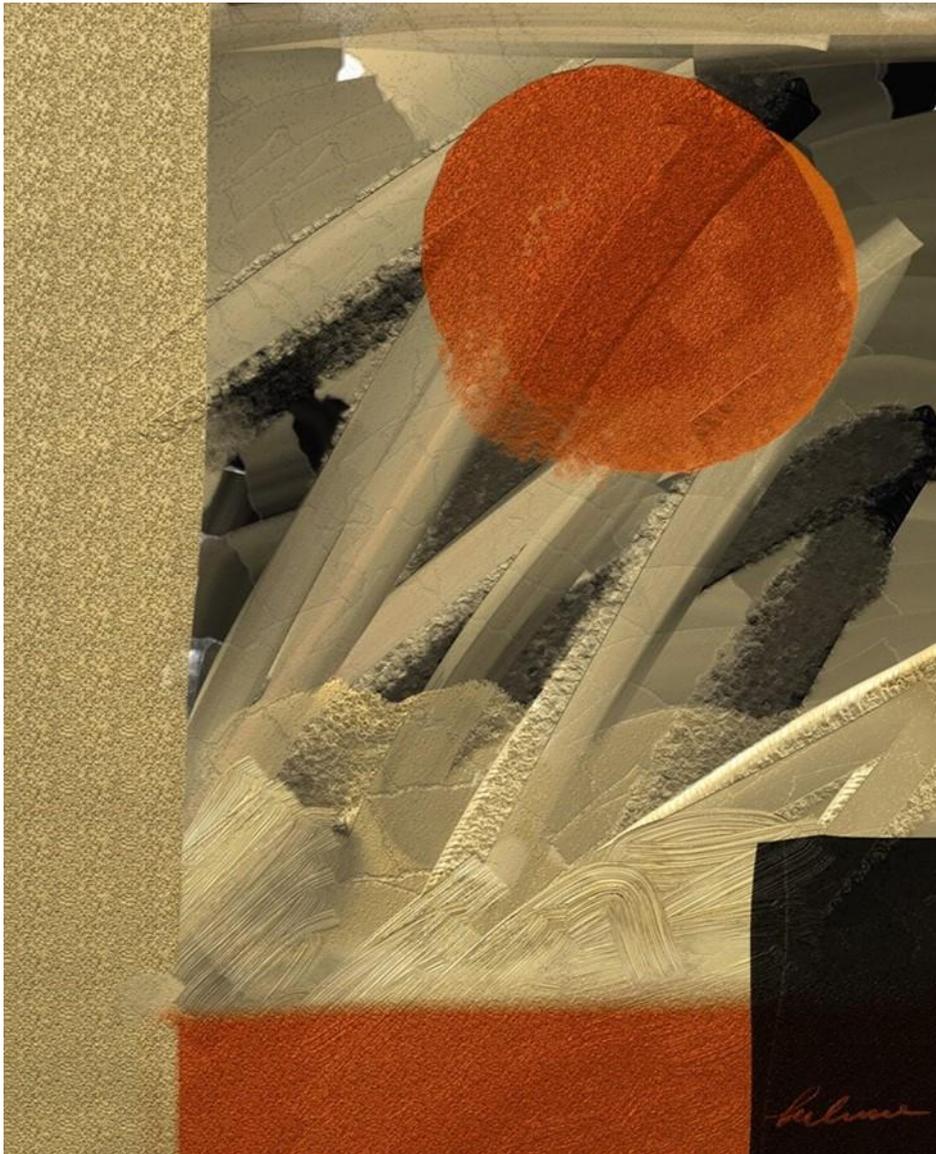
Figure 6. Goldberg, H. ArtRage (2017).

I've been using ArtRage for about 4 years as my main painting app. I saw the New Yorker cover by Gorge Columbo done on his iPhone in 2009 with Brushes. Five minutes and five dollars later I began my second career as a painter, first on my iPhone and now on my iPad. I was 68 years old when I started painting seriously. On my 70th birthday I got a call from Jeffrey Dickinson at Apple asking me to show my paintings in their Flagship store in San Francisco. He told me that "my work was cutting edge". Can't think of a better 70th birthday present. I've painted 4000+ works in the six or so years since that day in 2009.

I love to experiment with different apps and to push their limits. Today I primarily work with ArtRage, though I am open to experimenting with other apps. I love ArtRage's ability to recreate the experience of different media and duplicate their textures. I often start out using the roller brush and try to create interesting textures, colours as ground for my painting. Sometimes I will set down a gold or other background roughly in ArtRage and then take it to iColorama to change its texture and reimport it to ArtRage. Sometimes I experiment with using the water colour brush on an oil painting. It creates a whole new medium that's not possible in the same way with physical paints.

I usually paint abstract works because I can respond to my painting itself rather than focussing on a subject outside my mind or the "canvas". Painting for me is a form of meditation and play. I paint all the time I'm not working as a therapist. I even paint in between appointments. The iPad is perfect. No set up, no canvas stretching, no clean up!

I've made friends around the world and became one of the first members of IAMDA and attended their conferences in New York. I've done more presentations at Apple, MacWorld, and other venues since then and my work has been exhibited around the world.

(Personal correspondence. Goldberg, H. 2018).

Susan Murtaugh, a professional Fine and Graphic Artist, a graduate of Chicago Academy of Fine Art. A participant of both iPad Artists and TMAC. Murtaugh moved from traditional fine art practice to using the iPad as her primary tool. An advocate of the digital art movement, Murtaugh streamed live from the Palo Alto summits in 2016 and 2017.

Figure 7. Murtaugh, S. SketchBook on iPad Pro with pencil. (2016).

After spending the bulk of my life in Advertising and Graphic Design, I was well aware and versed in the properties of digital work in photography and illustration back in the late 80s and 90s. It was much cruder and there was limited software to use to get the job done. I liked it then and I LOVED it ten years ago when the iPhone was invented, and I was able to help familiar software companies develop apps for the fledgling devices. The world changed for me. I flew, head first, into becoming "all digital." The iPad cemented me in this new and fun place.

(Personal correspondence. Murtaugh, S. 2017).

Penny Ross, an American academic, spent her academic life teaching fine art. Now retired she uses her iPad to create landscapes and portraits of family and friends. Ross is a prolific artist and uploads her work regularly through social networking sites.

Figure 8. Ross P. Procreate (2017).

> I use iPad painting when I don't have my paints, or I'm waiting, or it's getting too dark, (the iPad lights my work) or to plan my work. I am a landscape painter in plain air and I use the iPad outdoors. Also, I have always used my finger.
>
> (Personal correspondence. Ross, P. 2017).

Amy Hashim is a member of both groups and lives in Kuala Lumpur, Malaysia. A mother of three young children, Hashim works off the iPad and in oil paints. She acknowledges that her large scaled oil paintings are inspired by her iPad work. She has recently exhibited at Penutupan Perasmian Langkawi Art Biennale (2016) in Malaysia.

Figure 9. Hashim, A. Procreate (2017).

iPad has helped a full-time nursing mother like me to stay creative and produce tons of artworks while taking care of my baby! I'm the proof that you should not ignore the technology to help you exist in the art industry. I was able to resume my love for arts and exhibit in any part of the world using digital arts. It was a life changing experience.

iPad/Mobile arts are an additional medium that we have obtained in the 21st century that has helped me realize the idea and concepts of paintings. Although it will not replace traditional painting at all.

(Personal correspondence. Hashim, A. 2017).

Jeanette Madden, from California, a graphic designer for 35 years and now works as a live caricature artist often using the iPad in her performances. Throughout her artistic life Madden has worked in various media, from painting to mixed media.

Figure 10. Madden J. Procreate (2017).

Using the iPad to create art has been a gift. I create artwork freely - anywhere, anytime. I have access to new textures and methods and explore freely. I draw caricatures live at events and as the caricature community learned what could be done with mobile devices, we began drawing digital caricatures at live events with the iPad and other mobile devices. I like changing up mediums and approaches. The iPad lends itself to my desire to explore and create works in multiple styles.

After a long dry spell, iPad play has led to a renewal of my personal creative practice. I discovered The Mobile Artists Collective and iPad Artists groups on Facebook. Participation in these communities of artists, led me to attend the annual summit. There I met and learned from other digital artists. I have a passion for introducing other artists to making art on the iPad and host a Meetup every couple of weeks where I'm able to introduce the practice.

(Personal correspondence, Madden, J. 2017).

2.1.9   Women's Artists Blog

I set up a blog with a group of four women artists and myself, whom I knew in a personal and professional capacity. I followed ethical codes of conduct, sought and obtained permissions for their participation in this research. The intention of the blog was to explore how this group of artists used their iPad's in their own professional practice. Unfortunately, due to a lack of organisation on my part, the blog did not work as well as anticipated. The blog became too informal and therefore it was difficult to extract credible qualitative data from the group in the way I had initially anticipated. Because of this, I decided to interview the group about their creative practice. It was observed that members of the blog did upload artwork created on the iPad and all use the iPad in their creative practice alongside other traditional media.

Andrea Thompson, a fine artist, made a series of experimental films as part of her creative practice. Recently she returned to focusing on textiles and continues to use her iPad to photograph and upload her work to creative online forums.

Figure 11. Thompson, A. (2017).

> For my work I have experimented with filming, projection and photographic images. I have explored layering together film and photographs, then projecting and re-filming them. I use my iPad throughout the day - in my breaks at work to sketch or plan my next textile piece. I love how versatile and intuitive it is.
>
> (Personal communication. Thompson, A. 2016).

Jane Sheppard, a professional graphic designer, and has recently completed a master's degree in Visual Communication at Solent University, Southampton. Her current practice focuses on ideas around everyday culture in relation to urban space, particularly shared social spaces. For her master's degree she used her iPad to make a series of experimental films and photographs, that she then used to create a series of screen prints.

Figure 12. Sheppard, J. Silkscreen prints (2017).

As part of my practice I gather visual and aural data that I use to create representations of people, specifically the ways they use public space. My iPad and iPhone are invaluable tools for visual ethnographic research.

I try to photograph people without making them be aware that they are being photographed. Whenever I use a large camera, people notice it, and if it is pointed in their direction, they either avoid it or 'play up' to it. Because the iPad is not camera-shaped and is such a ubiquitous object, I can pretend I am working or doing something else while surreptitiously taking close-up photographs of people as they go about their daily lives. Sound recording apps on the iPad and iPhone are useful for interviewing people in the street; holding a microphone up to someone's face tends to put them off, whereas they are quite happy to hold a phone and speak into it as it's something they are familiar with.

(Personal communication. Sheppard, J. 2016).

Caroline Wise uses the iPad alongside her other creative practice. Wise, a teacher and photographer created a series of MemoryLapse and time-lapse films and uses her iPad to take and edit photographs and make films.

Figure 13. Wise, C. Film still. MemoryLapse (2015).

> I've had my iPad for 6 years now, although it's not my main tool, it has become an important tool in my practice and opened opportunities that I simply could not have accessed before. A key component is the ability to make time-lapse films, using the MemoryLapse application. I have been able to make films over long periods of time, from months to years. It has replaced both the sketchbook and camera I previously carried round in my handbag. The ability to carry around my art practice whilst at work means that I can continue my creative work throughout my working day, in breaks, at lunchtime and waiting for meetings to start. Previously this would have been impossible.

> (Personal correspondence. Wise, C. 2016).

Andrea Sutton, head of Degrees in Fine Art at Doncaster College. She exhibits her work and uses her iPad in her creative practice. Teaching Fine Art, she regularly takes students to exhibitions and attends exhibitions herself. Sutton uses her iPad to build complex layers of drawing, often using the exhibitions she visits to inspire her work. Sutton's practice is primarily interested in drawing.

Figure 14. Sutton, A. Digital print with marker pens (2016).

Use of the iPad in My Art Practice

I have used an iPad as part of my practice for about 3 years, with a number of changes occurring in its role, as I have pushed on further with the exploration of how it can become integrated with the main practice.

The iPad as Sketchbook

Sketchbooks have always been central to the way I work; a compact, portable collection of drawings, ideas and inspirations. The idea of a collection seems important, a recording of a time and phase in my approach to working and thinking about it. The iPad seemed to me an exciting version of a sketchbook; very similar in scale to the books I would use, but capable of also photographing inspirations, layering photographs with drawings, collecting, organising and storing images. I had worked into printed books for quite a while, avoiding the blank page and enjoying working with the given images and text layouts. The iPad easily replicated this aesthetic by enabling a similar drawing over photographic or imported images using very simple software such as the application Sketchbook Express; limited to three layers this 'starter' application allowed the first explorations of using the iPad to be about creative possibilities in-line with my existing sketchbook practice rather than overwhelmingly technical.

I have gone on to favour the Procreate application that offers multiple layers and a broad range of digital tools and media. I have drawn in galleries using 'ink', 'collage' and 'charcoal' all in one drawing and recorded the drawing process in video whilst on car journeys. These are all developments from approaches I had already practiced in my traditional sketchbooks.

The iPad as Print

During 2016/17 I have been working more with the manipulation of the actual printouts of these images from the iPad; exploring how the mainly photographic images can be interrupted by erasure and drawing onto the surface. The contrast between the photographic and the digital, with the abstract and gestural marks seems to be really important, an indicator of a multitude of visual realities.

Some images have a clear photographic ground; of personal spaces both domestic and the studio. The photographic surface is erased and overlaid with a drawing that records a more personal and emotive response to these spaces. In others the photographic image has been obliterated leaving only traces of the inkjet printer inks; the expressive drawing process dominating the relationship.

(Personal communication. Sutton, A. 2017).

2.1.10 Summary

This case study explored the origins of new online artistic communities and examined the ethos of these communities. A commonality between the artists identified in this research, is their use of the iPad for creative practice and experimentation. The small selection of international online practitioners show how social networking has facilitated the distribution of new media iPad art. The application 'Procreate' seems to be favoured by this selection of artists.

Digital integrity is defined as new ethical codes of practice, is an important factor for new media online artistic groups. The ability to record drawing and painting in progress acts as a legitimiser of new media iPad art.

A difference between the artists identified from the online artistic communities and the blog, is the online artists were initially identified through their direct use of the iPad within their creative practice. Whereas, the blog evolved because the artists had iPad's and I was interested in finding out how and if they used them in their creative practice. Through this research I found that the iPad has facilitated new creative practices, for both contemporaries and peers. The iPad can be used as both a complementary tool alongside traditional media and as a replacement tool.

Chapter III

3 Research Methodologies

3.1 Towards a Methodological Approach

Introduction

It has become apparent throughout this research that new media digital fine art practice-based research is a relatively contemporary field of research. Whilst this initially presented difficulty in situating the research, it opened new opportunities to explore different approaches to find an appropriate 'fit'. The purpose of this chapter is to provide a rationale as to why a case study was seen as a viable ethnographic framework from which to 'hang' the research of contemporaries and peers. Case study, in this context, refers to the in-depth, context-specific description, analysis and documentation.

The purpose of this chapter is to fully articulate my creative practice as research and to discuss the nature and extent of the material data included within the scope of the doctoral study. This thesis explores whether the iPad is a virtual studio that facilitates new creative practice and the dissemination of new media iPad Art. The structure of this chapter is presented under the following headings:

- Approaches to research
- A visual ethnographic approach
- The final research design
- Mapping creative practice
- Filmmaking and photography
- Digital drawing and painting
- Presentation of data
- Analysing and testing the hardware and software
- Mapping the iPad in my handbag
- Research methods for testing applications
- Filmmaking/photography/drawing/painting applications

3.1.1 Approaches to Research

In constructing a methodological framework from which to carry out practice-based research, an outline of key concepts was developed to identify the different elements of practice, this helped to situate the research. I began by recognising the range of theories and practices featured within the fine art research that acknowledge the notion that visual arts constitute a wide ranging and a hybrid discipline. My research weaves together the comparatively new methodologies of arts-based research, autoethnography, visual and digital ethnography. The creative practice of this research is firmly centred on creative outputs, with the iPad as the main tool for both creation and dissemination and involves the integrated practices of writing and art. As research, art practice must be both creative and have a critical element from which new knowledge can be acquired. Sullivan (2006:43) asserts:

> Irrespective of the informing sources, media preferences, or image-base, the artist exercises individual control over the creation and presentation of artefacts as forms of knowledge.

The research approach I have taken to artmaking facilitates thinking about the process and construction of the work as more important than the finished piece, this is embedded within my creative practice. My assumption is that the images developed through research which include photographs, videos, drawing and paintings, are themselves valid forms of knowledge and they can be seen as data, as sources of information derived from and for investigation. My research is based on visual images: recorded and edited video, digital photography, drawing and painting and draws on methods from a range of academic disciplines, including art, art theory and autobiographical writing.

My research is situated within feminist, personal, cultural and social contexts and is theoretically influenced by feminist theory (Haraway 1985, Wajcman 1997, Lovejoy 2004, Bruno 2002), autoethnography (Ellis, Bochner, Adams, 2011), critical visual ethnography (Pink, 2001) and virtual ethnography (Hine, 2000). These combined ethnographic methodologies that underpin this research are intertwined within a theoretical framework that includes 'Making in Systems' (Sullivan, 2006) and 'Reflective Practice' (Kolb, 1984).

Fine Art as research is a field of enquiry which places the artist outside the conventions of traditional practice. Sullivan (2006) has defined three distinct frameworks on which the artist as researcher can frame research: 'Making in Systems, Making in Communities, and Making in Cultures'. Of relevance to this research is 'Making in Systems', as it is defined as investigative in nature through new visual forms, bound in with embedded knowledge and skills, but is open to connect and overlap with other domains of inquiry. 'Making in Systems' can be seen to push the disciplinary boundaries into new areas that offer innovative ways to conceptualise practice.

An awareness of reflective practice based on David Kolb's (1984) experiential learning model has supported my research methodologies, this is discussed in the findings of this thesis. This is a reflexive approach that requires an awareness of the researchers own positioning (gender, religion, sexuality, ethnicity) and the social and cultural position that form the researcher's perspective. Reflective practice should recognise and show embedded specialist knowledge within an evaluative framework and can be seen as an appropriate fit with 'Making in Systems'. Throughout my research I have used my embedded knowledge of fine art practice to explore the ground-breaking ways the iPad offers to create artworks and enable innovative creative practice to develop. This is demonstrated through the creative practice of this thesis.

3.1.2   A Visual Ethnographic Approach

The analysis of my research systematically combines several textual and visual approaches that recognise the possibilities of critically informed arts-based research, as a means to form different ways of understanding culture. To contextualise my research, it was important to establish an ethnographic framework. Ethnography as used in this project describes and analyses art culture within a research framework and includes the study of cultural practices, commonalities and beliefs. Clifford (1986:26) asserts that ethnography is 'hybrid textual activity' that 'traverses genres and disciplines'. This is due to its capacity to incorporate interviews, explore space and place and use examples of cultural artefacts. Ethnography can therefore be seen as a vessel that encompasses a variety of methodological approaches.

Autoethnography is a methodological approach that joins components of autobiography and ethnography to consider research in both a cultural and social capacity. It uses personal narratives as critical reflection as a form of information, incorporating concrete details to discuss and analyse cultural phenomena. (Hine, 2000; Ellis, Adams and Bochner, 2011).

Ellis et al. (2011) suggest the process of autoethnography can involve the researcher writing about 'epiphanies - remembered moments perceived to have significantly impacted the trajectory of a person's life' (2011:63). They suggest that an epiphany can be both positive and insightful for the person experiencing it, and for the researcher, and it can also open new ways of negotiating and framing research. They further suggest that through analysis researchers need to show not only their understanding of the 'epiphany' but how others could use and learn from it. My research explores a cultural zeitgeist through personal narratives and required me to weave different methodological elements together to form my epistemological narrative.

3.1.3   The Final Research Design

The research is not however, limited to epistemological narrative, there is an added dimension of visual analysis. Sarah Pink (2001:96) suggests:

> Visual research as a methodology begins with the premise that the purpose of analysis is not to translate 'visual evidence' into verbal knowledge, but to explore the relationship between visual and other knowledge.

A visual ethnography analyses the use of photography, film and hypermedia technologies as visual information. Use of a visual ethnography utilizes visual research as central data. For this research I planned to use my virtual studio for the whole of the doctoral period to create new qualitative data. I made a conscious decision to carry my iPad around in my handbag, so that it was constantly accessible and ready to respond immediately to my environment, enabling me access to multiple functions that facilitate digital filmmaking, photography, drawing and painting.

3.2   Mapping Creative Practice

The following is a brief summary of my creative practice that forms the centre of my epistemological narrative. My creative practice explores feminist discourses firmly rooted in social commentary, exploring relationships between personal, domestic and public spaces and finds its expression mainly in filmmaking, photography, digital drawing and digital painting.

3.2.1   Filmmaking and Photography

I used the iPad's camera and video camera, filmmaking and photography applications to capture and explore personal narratives. I then further explored and experimented with editing and layering footage to create montages, photographs and collages, that stand as independent research outputs.

3.2.2   Digital Drawing and Painting

I created and archived digital drawings and paintings as recorded data. Visuals created through this research stand autonomously and represent knowledge as data that would be impossible to translate into textual form. These stand as data archives of everyday domestic records of my life and creative practice (Pink, 2009).

3.2.3   Presentation of Data

The creative practice of this research is presented in the form of a practice review, split into three sections. Each section presents a different aspect of my research and has been achieved through a technological method derived from different applications.

Through engaging in my research, I became aware of artistic online communities and peers who were using the iPad as part of their creative practice and decided to also collect visual evidence from these online communities using digital ethnography: which is a distinct research approach primarily developed by Hine (2000).

Hine (2000) considers how digital ethnography relocates the principles of ethnography to an online context. Digital ethnography is a triangulated approach that considers the technological development of online communications. Digital ethnography as applied to an online setting recognises the rich variety of online social interactions and is an appropriate fit within the contextual framework of the research.

In this research, the cultures defined are contemporaries from online artistic communities of 'iPad Artists' and 'The Mobile Arts Collective' and a selection of peers. Hine (2000: 137) suggests, 'the role of the ethnographer is to observe, document, and analyse these practices, to present them in a new light'. As the research can be described as embodying a relatively new field of research, it required careful consideration regarding methodological design. It is reasoned that a digital ethnography is best suited to the purposes of the research as it enables both personal and participant narrative to be analysed. This research is presented in the form of an autonomous case study. I made a conscious decision to use a case study, because it is a good way of collating data. As stated by Thomas (2011:45) 'A case study is not a method, it is a wrapper for different methodologies. Research is built around a question not method'.

3.3   Analysing and Testing the Hardware and Software

3.3.1   Mapping the iPad in my Handbag

Whilst other devices have been researched, this thesis primarily focuses on the iPad version's 2, 3 and 4, developed by Apple Inc. A factor for choosing to research the iPad is its accessibility, in terms of the cost of the device (starting at £300) and for its applications (starting at 79p). An application is a piece of software that runs on Apples iOS mobile operating system. The range of available applications is considerable and can be downloaded from the App Store either to be saved on the device or held on a personal database. As of June 2016, there were 2.2 million applications available for the iPad[3] .

The first iPad was released in 2010, a tablet computer that can be viewed vertically or horizontally, it is roughly the same size as an A4 sketchbook. It uses a Retina display, which is a liquid crystal display that has a high pixel density which creates a clear sharp image that can be enlarged tenfold without losing quality. The screen is backlit and has an oleophobic coating.

The touchscreen has fast become a normalised part of the experience, its very nature promotes haptic immersion. The user interface is based on the concept of direct manipulation using multi-touch gestures; its design features and instinctive user interface advocates transparency, allowing the user to concentrate on what they are actually doing rather than the device. The interface is the point of interaction with software and is menu-driven, which uses icons as metaphors for objects and actions in the real world, for example folders, paper, paints etc.

The iPad's operating system is iOS (mobile operating system) and supports all Apple products. Two types of software run in iOS; applications and iOS web content. When I initially undertook this research (October 2012) the iOS update was at 7.0.2. It is currently (January 2018) 11.0.2. The iOS system is updated regularly which ensures the device stays up-to-date. The iPad accesses the Internet solely through its wireless signal. Streaming between devices is made possible via Wi-Fi, for example iPad to iPhone.

The device contains a cluster of built-in applications. including; built in camera/video camera that can be directed outwards or inwards, iTunes music, which is a library and music player, Safari is the default browser for iOS devices. Photos can be saved on the device, in selected folders, mail and Facetime, which is Apples video face-to-face communication application.

---

[3] The Statistics Portal (2017) [Online]. Available at: https://www.statista.com/ [Date accessed 12th June 2016].

For this thesis, I have used Apple's iPad 2, 3 and 4. Since these models were released, Apple have also added the iPad Air, iPad Mini and iPad Pro, to their range. Currently, (January 2018) there are four iPad's, three Air models, three Minis and two Pro models. Differences between the models include size and weight and price. Ranging from £300 up to £1000 for the latest and largest version of the Pro. The smallest capacity being 16GB, the largest 256GB.

I initially used the iPad 2 for my practice research, replacing it in 2012, with the iPad 3, which I then used until December 2016, I then replaced it with the iPad 4. Apart from the iPad 3's smashed screen, a primary motivation in replacing it, was that it would no longer update. It was stuck on iOS update 9.0.7 (December 2016). Replacing the iPad 3 with the iPad 4, purchased online through a viable sales site, three things are apparent; it must be accessed by a pin code, it is substantially faster, and the picture is sharper. (Appendix A, B, C, D provides a further breakdown of the iPad and applications that I have used throughout the doctoral period).

3.3.2   Research Methods for Testing Applications

Testing applications was an ongoing process throughout my research. New applications are being continually added to the App Store, applications are updated, which can change both the format, performance and appearance of the application. I built up a cluster of applications to use within my creative practice, this provided me with a virtual studio from which I developed individual projects within each discipline. Within each artistic discipline, I carried out testing of individual applications to evaluate the performance of each application.

3.3.3   Filmmaking Applications

I tested filmmaking applications, including, but not limited to: iMovie, Fused and Timelapse. Whilst testing the functionality of the applications, consideration was given to: the range of available tools; the settings and timings; whether the films be edited, layered and/or collaged together; and the overall reliability of the application/s.

3.3.4 Photography Applications

This is one of the largest categories on the App Store. There are applications for filters, cameras, editing, remediating painting and layering photographic images. I tested a range of applications, including but not limited to: Photoshop Express, Painterly and Glaze. I considered the range of filters, and their aesthetic qualities. including: the aesthetics of the finished photograph; the range of editing tools; the quality of the colour palette; and the reliability of the application.

3.3.5 Drawing and Painting Applications

For the drawing and painting applications consideration was given to: the 'lag' of the virtual brush or pencil stroke. A 'lag' occurs when the digital tool - brush, pencil etc - does not match the speed at which you are working. This can distract from the work at hand and make it difficult to draw or paint); the quality of the colour palette; the range of available tools (brushes, pencils, canvas); the ease of saving both finished and unfinished work; the reliability of the application; and whether it is possible to access painting or drawing once saved.

 (Appendix D provides findings from this testing).

Chapter IV

4 Creative Practice in the Virtual Studio

Introduction

The creative practice research of this thesis is presented in the following chapter. Each section is a composite of personal experience, creative technique and processes and has been achieved through exploring different technological methods. They are accompanied by reflection on these processes and on the creative output. Four artistic disciplines have been analysed, which include; digital filmmaking, photography, drawing and painting. Referencing for applications can found in Appendix B, C. Further reflection and analysis will take place in the Findings chapter. The creative practice is presented under the following headings:

iPad: Film Studio

- How Can Conceptual and Theoretical Influences Be Reflected Through New Filmmaking Practice?
- How Does the Portability of the iPad Enable New Practices of Filmmaking?
- How Does the iPad Enable Editing, To Create Layering and Montages?

iPad: Photography, Editing and Printmaking Studio

- What are the iPad's Photographic and Editing Affordances?
- Does the iPad offer a New Aesthetic?
- Printmaking
- Post Production – How Does the iPad Enable Photographic Editing?

iPad: Sketchbook

- Acquisition – What are Affordances of the iPad to Draw and Paint?
- New Creative Practices -Tools, Techniques and Processes
- Visualising the Self: Self Portraiture and New Digital Practice

iPad: Film Studio
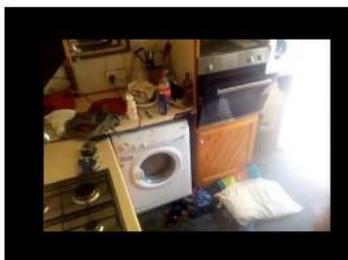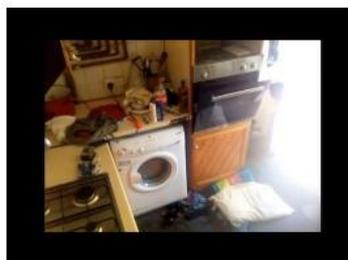
Figure 15.Film stills: Timelapse. 'iPad in my Kitchen' (2013-14).

4.1 iPad: Film Studio

4.1.1 How Can Conceptual and Theoretical Influences Be Reflected Through New Filmmaking Practice?

This research draws together a number of filmed works that explore feminist discourses through visual narratives within the domestic space. I used the iPad's video camera and filmmaking applications to capture and edit moving digital video. I explored applications that offer innovative forms of visual experimentation including the ability to distort the appearance of time and to manipulate and layer film. In particular I used Timelapse and MemoryLapse applications.

4.1.2 A Brief Personal History of Time-Lapse

Time-lapse[4] photography and filmmaking are a technique whereby the frequency at which each individual frame is caught is much lower than that used to view the sequence. When played at normal speed, time appears to be moving faster and thus lapsing. For example, each image of a scene may be captured once every second, then played back at 30 frames per second. The result is a 30-times speed increase, which in turn can be seen to condense both time and space.

Before the iPad, pre-digital time-lapse photography took a long time and required patience, a camera, timer, or a specialist film camera, and an editing suite, which made the process both expensive and time consuming. An example of this is the film *Koyaanisqatsi* (Glass, 1982) meaning 'Life out of Balance' Directed by Godfrey Reggio, the film is a visual documentary, it does not have a plot and focuses on the growing divisions between man and nature. Footage is both slowed down and speeded up. It presented an innovative visualisation of the world, which inspired my early creative practice as I began making series of time-lapse photographs and obtaining a second-hand super 8 camera, with a single frame setting, I began making films, which could then be played on a super 8 projector.

The company Avid (1988) developed a prototype for a digital nonlinear editing system; the Avid/1 (Wikipedia, 2015) which was first shown at a convention for the National Association of Broadcasters (NAB). Avid used the Macintosh II to develop their editing system, though it was not until the late 1990s the software became available to a wider demographic, through software programs such as iMovie (1999) on Apple Macintosh desktop computers and Adobe Premiere (2003) on Microsoft computers.

---

[4] In this thesis I refer to 'time-lapse' as a process and the application 'Timelapse'.

This way of creating time-lapse films still required a camera and timer and access to a computer with the appropriate software. Having experience of time-lapse photography, I knew the process to be long-winded and time consuming. Initially the process as I knew it, was a photographic process that involved an analogue camera, and tripod, with the individual photographs being timed by a watch. The film would then be developed as slides to be shown on a slide projector.

At the turn of the century, digital cameras and timers became more affordable and therefore became a part of my practice (approx. 2001). The timer was a separate piece of equipment that when attached to the camera could be set to release the shutter at timed intervals. The photographs would then be uploaded to a desktop computer with Adobe Premiere and later a MacBook with iMovie and Photoshop. To make a time-lapse film, each image would have to be individually edited in Photoshop to change the dimensions of the image from square to rectangular, before being uploaded to Adobe Premiere or iMovie. This process was often fraught with technical difficulties, from programs crashing, to a loss of footage through the failure of the system to save work.

It is the iPad's time-lapse and editing applications such as iMovie that have condensed this process into a single convenient device and has made the process easily accessible. The time-lapse application presented a new way of filmmaking, as does the innovative MemoryLapse application. This application creates films by running a series of still images together, starting with an alignment image that turns transparent and can be returned to repetitively. Conceptually the use of time-lapse in my creative practice is linked to the notion that through technology time is speeding up.

Psychologist Aoife McLoughlin (2016) from James Cook University's Singapore campus, has found that technocentric societies, interacting with technologies as part of their daily lives, do experience changes in cognition. This is making our brains process information more efficiently, which results in the perception that thinking time is passing quicker than we think it is 'While it might help us to work faster, it also makes us feel more pressured by time' (McLoughlin, 2016). This is resulting in the perception that time is moving quicker. In this context, we can experience time arbitrarily.

Our perception of time as linear and measurable means, we often experience it both arbitrarily and relentlessly. Exploring the concept of time, through speeding up and slowing down the footage, unexpected juxtapositions occur adding to the sense of time being fragmented and distorted. Time is now seen as a scarce resource that must be captured before it eludes us. It is this notion of time as transient, that must be captured before the moment (time) is lost. I have linked this concept directly to the use of time-lapse that I use throughout my creative practice.

Figure 16. Film stills: Timelapse. 'iPad in my Kitchen II' (2013-14).

iPad in the Home: Mapping the Domestic Narrative

In using the domestic environment as part of my practice-based research, I wanted to explore feminist discourses through the idea of the home. For this research the spaces within the home that I explored are the kitchen, as the kitchen especially is associated with women, and the sitting room, which I considered to be central to exploring new visualisations of my personal space.

I find it difficult to turn the camera on myself, preferring to be behind it. However, for this research I decided that I would have to be in front of the camera (see figures 15,16). Reasoning that as I was focusing on my domestic space, my presence would make the films more personal and aid the use of the iPad as a diaristic device.

Historically there is a tradition of the domestic space as an area for creative expression. Researching artists who had focused on the domestic in their practice, I was influenced by the visual works of Martha Rosler (1975) and Chantal Akerman (1977). Both women used the domestic in different ways to discuss and explore the role of women in society. Watching films by Rosler (1975) and Ackerman (1977) inspired me to capture my everyday through filmmaking.

Martha Rosler used filmmaking as a political means of expression. A piece that was influential in my creative practice was the performance piece by Rosler (1975) *Semiotics of the kitchen* (as discussed in chapter I, section 1.2.2). I considered recreating Rosler's' (1975) performance piece, but decided against it, as, after watching the original film on YouTube, there are numerous interpretations by women, which I thought would not represent a new visualisation of a domestic space. The piece did, however, inspire me to think about how to visualise and map my domestic space.

To begin I set up my iPad in the kitchen on a high shelf and went about my domestic duties ignoring the iPad recording the scene in front of it. I moved my iPad around the house leaving it set up, sometimes for days in the same place, at other times using different angles, I experimented with a time-lapse application, changing settings on the application from one frame per second to 2,3,4fps, up to 35 fps and upwards.

Leaving the iPad recording it became an observer mapping my everyday. Bruno (2007: 201) describes how Akerman's (1977) use of film challenges and remaps feminine discourses, through offering visualisations that focus on picking out moments that otherwise would be pushed aside, taking on liminal qualities. In comparing my use of time-lapse to Akerman's use of real (reel) time, I would suggest that my use of time-lapse reflects on the contemporary notion that time is speeding up.

At the time of this research, I was raising a family, working and attending university. I felt I was always playing catch up, rushing from one job to another, be it working to pay the bills, or making dinner or putting out another load of washing, it seemed never ending. I felt I spent all my time in the kitchen, cooking and cleaning, at times I felt overwhelmed and frustrated by the continual monotonous repetition of the everyday. Using my iPad to map my domestic space these films capture the rhythm of my everyday and create new visualisations of moments that otherwise would be pushed aside. The concept of liminality, of exploring and capturing the moments 'in-between' became more important as my creative filmmaking practice progressed.
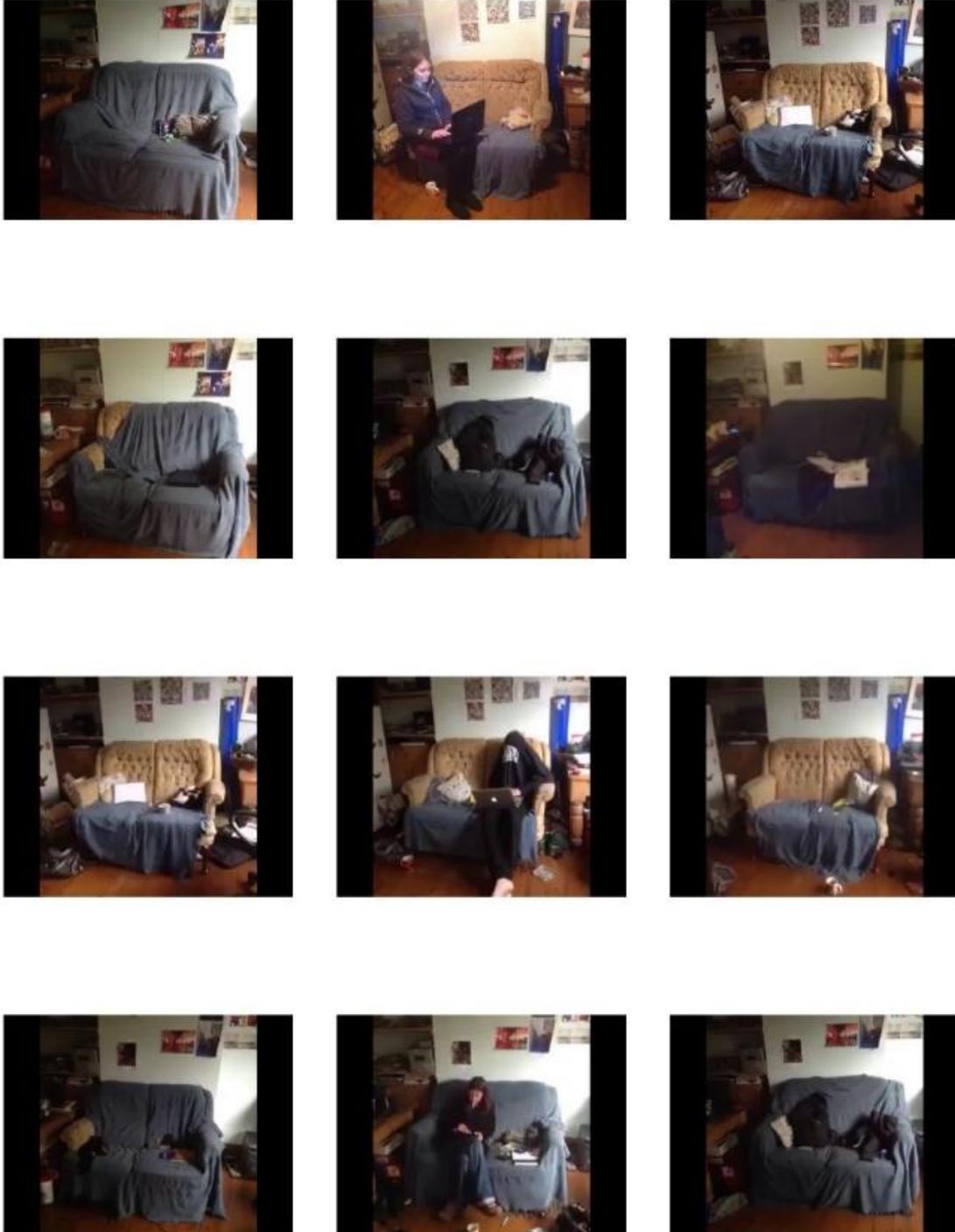
Figure 17. Film stills: MemoryLapse. 'Settee, Dale Road' (October 2013-July 2014).

Figure 18. Screen shot: PicPlayPost. Left: MemoryLapse (2013-14). Right: SketchClub. Recorded drawing (2014).

MemoryLapse: The Settee

Alongside the time-lapse films, I used the MemoryLapse application to make films of the domestic space. This film focuses on a settee, a space central to the home (see figures 17,18). Family members and friends come and go. At times, the settee is physically empty but carries traces of the life being lived within and around the space. With this film I deliberately wanted the timescale to be over a period of months, to capture a sense of space changing through time. I developed this piece further through recorded drawing (as discussed in section 4.3.3).

An awareness of experimental ethnography has underpinned the secondary creative processes of exploring and experimenting with editing and layering footage to create montages, photographs and collages.

Once I had accumulated some footage on my iPad, I began editing, through experimenting with different applications using video filters and applications such as PicPlayPost and iMovie. The PicPlayPost application enables different films to play on the screen at the same time. It allows the films to be played at different speeds, either sequentially or simultaneously. It can also show film sequences in reverse, filters can be used, and a soundtrack added. The film can then be saved and edited into a sequence in iMovie. This creates a new viewing experience, for both the practitioner and the viewer and disrupts the idea of filmmaking as a single linear narrative.
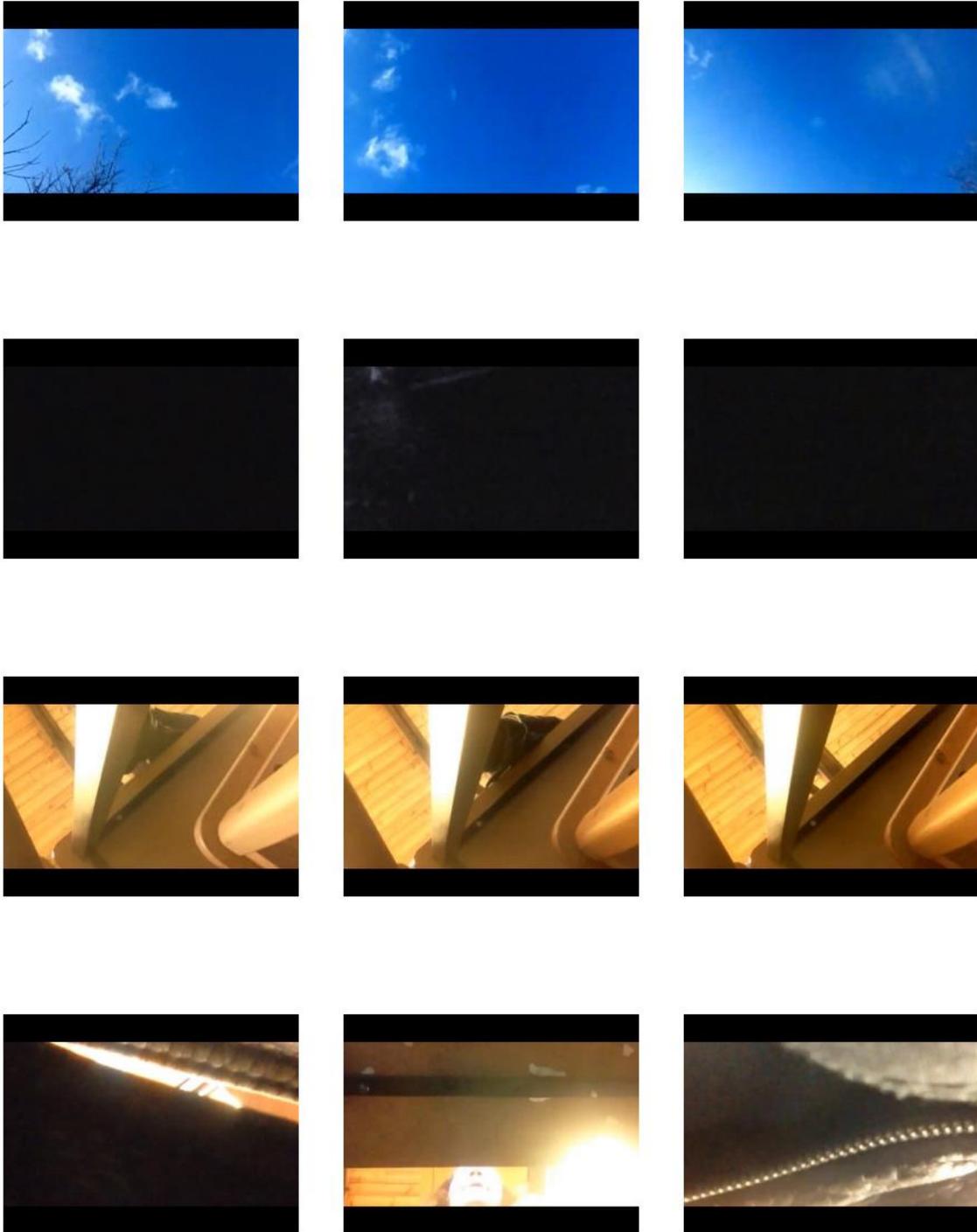
Figure 19. Film stills: 'iPad in my Handbag. 2 Weeks Compressed' (March 2014).

iPad in My Handbag: Two Weeks Compressed

The film *iPad in My Handbag: Two Weeks Compressed* (March 2014), explores feminist discourses of personal space (see figure 19). Using my iPad as a diaristic documentary device I turned the camera on myself and strapped the iPad to my body, I carried it around in my handbag whilst continually recording. I recorded journeys made on foot, by car, on a train and on the underground.

A significant change in my practice was the conscious decision to film continually, and, not stop filming between destinations. I realised the actual journey was as important as reaching the destination. I made the decision to film continually after the realisation that I was, in part, mapping a digital journey and the way I was filming, by stopping and starting again at different destinations, was not capturing the journey, just the destination.

To make this film I carried my iPad around in my handbag over a two-week period (February 2014). Using the time-lapse application, I constantly recorded everywhere I went, or left the iPad recording whilst at home in my domestic space. I experimented with timings on the application and reviewed the pieces of film to see what had been captured and what was left out.

Previously I would have deleted footage that was not precise, composed or focused. This is the point in my research where I became aware that the spaces 'in between' had a liminal quality to them and were more significant than I had previously thought. The outcomes of filming in this way gave the films an ambiguous feel to the narrative, capturing a new visualisation of my personal space.

The concept of liminality is derived from the Latin word 'limen' and is a quality of ambiguity. The concept is most associated with anthropologist Victor Turner. Dr Charles La Shure (2005) of Seoul National University, discusses Turner's concept of liminality, describing it as 'a visual expression of anti-structure in society' (2005) whilst paradoxically also being a source of structure. Le Shure (2005) asserts:

> Liminality represents the unlimited possibilities from which social structure emerges. While in the liminal state, human beings are stripped of anything that might differentiate them from their fellow human beings—they are in between the social structure, temporarily fallen through the cracks, so to speak, and it is in these cracks, in the interstices of social structure, that they are most aware of themselves. Yet liminality is a midpoint between a starting point and an ending point, and as such it is a temporary state that ends when the initiate is reincorporated into the social structure.

In this context liminality can be described as not being outside of the social structure or on its edges, it is in the cracks within the social structure itself and as the spaces on the edge of peripheral vision, where a type of entropy lives that does not exist in the physical world. It is this concept of liminality as a fluid ephemeral state negotiating between conceptualised spaces that I have linked to this research.

In capturing these 'in-between spaces' they represent a transition from a more rigid way of filmmaking to a more fluid process, mapping my personal space and capturing a transient time. Capturing these 'in-between spaces' became part of the daily ritual of filming whilst the iPad was in my handbag. For this project, I used the back camera and the time-lapse application which after five minutes of usage the screen goes black, though the application continues to record. Placing the iPad with the lens at the top of my handbag, near the opening, I wanted the viewer to have a sense of being invited into a personal and intimate female space, to blur the boundaries between public and private in a subtle way.

The filming itself became a private act, with the knowledge the iPad was in a safe place continually recording, the iPad becomes my technological eye, a cyborgian extension of self. It records my personal and intimate space whilst I go about my daily routines. Throughout the film the lens is partially covered, from inside the handbag we see glimpses of the world outside of it, snatches of journeys, a streak of light, a hand clutching at the handbag, a glimpse of myself, both movement and stillness. The viewer is left on the periphery of vision, the implications of what is happening but cannot be seen, adding to the sense of disjointed narrative.

An idea that has underpinned much of my practice is that of the 'digital journey'. The idea of the digital journey is not just one of the physicality of mobility, that the iPad enables, but also the journey of mapping original pathways through a digital landscape. Manovich (2001:15) claims there is an element of automation in digital creativity, through following digital pathways created by the media developer, therefore implying that new media artworks lack originality. The iPad's new tools enable originality to develop through negotiation and understanding of what these new tools can provide for the artist.

Carrying the iPad around in my handbag whilst continually filming increased my awareness of a sense of connectedness that through Wi-Fi now follows us around. As the technologies of Wi-Fi expand with ever faster connectivity, increasingly we are constantly connected to a global audience. For me this raised the question of public and private space in a new context. The decision to upload and disseminate the films through social networking sites making them instantly public was in part because the technology is in place to do so, which means the work can be accessed instantaneously across a global platform. It was also part of the diaristic documentary process.

Part of the decision to carry my iPad around in my handbag was in part the ethical considerations of filming in public spaces. Concealing my iPad in my handbag meant the film was about capturing and mapping my personal space, my everyday, not social interactions. I informed people I was filming with the iPad in my handbag, not recording sound. It was concealed, and the lens obscured, and I was not filming or capturing on film anybody around me. Ethically I believe, without the iPad on display and the lens obscured, capturing obscure footage, only capturing glimpses of myself, nobody else, I did not breach any ethical standards. Whilst being carried around in my handbag in this way, it opened new possibilities for experimentation whilst blurring the boundaries between public and private space.
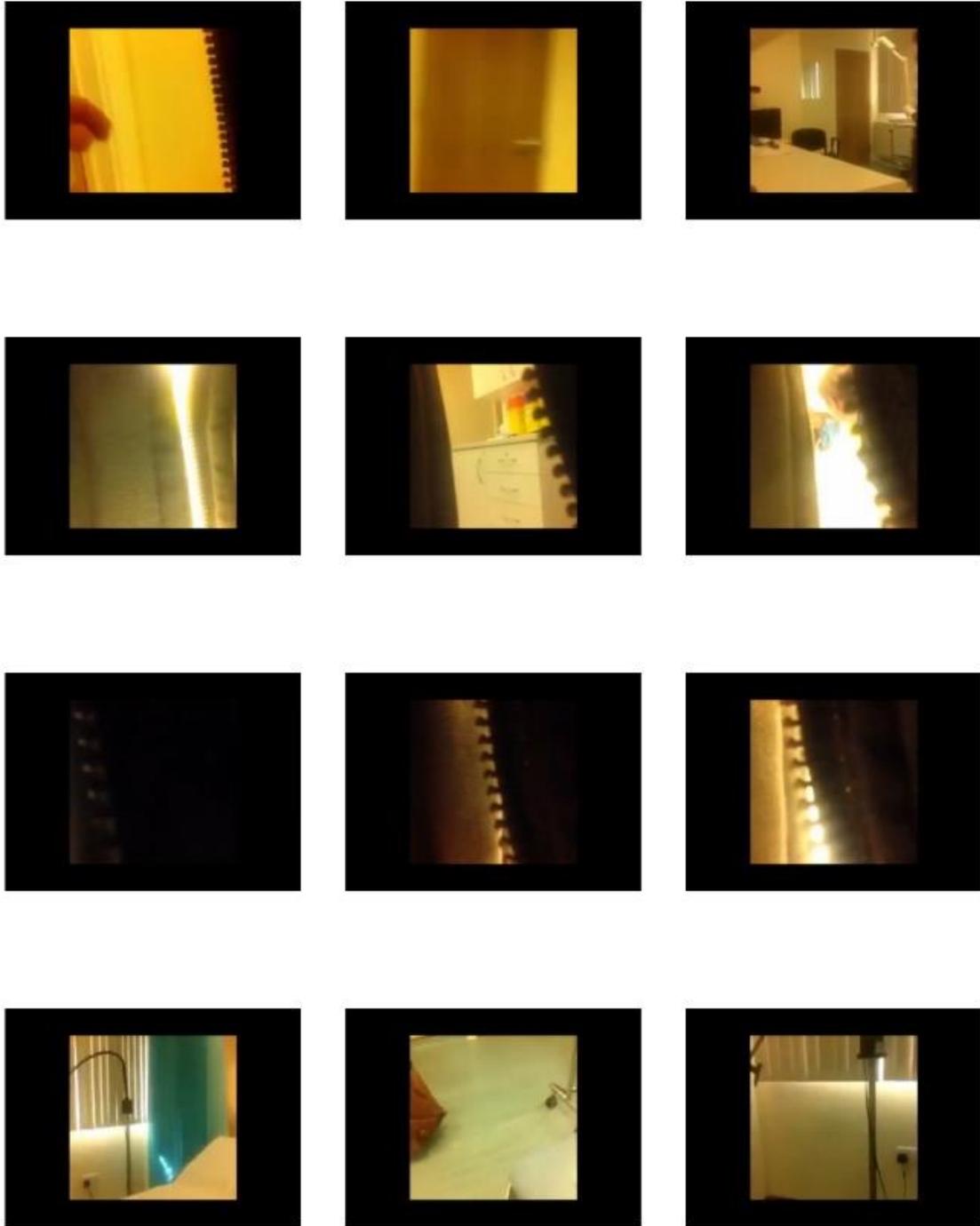
Figure 20. Film stills: Timelapse. 'Smear' (28 August 2014).

Smear

The next piece of research I analyse is the film *Smear* (2015) (see figure 20). Throughout this thesis I have considered how the use of the iPad enables work to be created anywhere and creates private 'bubbles' in public spaces. I have explored new ways of visualising the nature of intimate, private and public space. In this film I wanted to explore the boundaries between intimate and public space. To do this I decided to film myself attending a cervical screening.

Attending a cervical screening is a very personnel procedure. It can be both uncomfortable and embarrassing, however I felt it was important to attend and document the process, primarily to put my mind at rest that I did not have any abnormal cells. Cervical cancer is not something we normally think about, unless we have symptoms, until a letter arrives from the NHS inviting us to attend a cervical screening test. Once the letter arrives, until the appointment is attended, and the results are known, it is rare that some level of anxiety is not felt. In this piece, I wanted to capture a sense of the trepidation I felt throughout the appointment whilst the procedure was taking place.

Strapping the iPad to the front of the middle of my body with the lens pointing outwards, I filmed throughout the appointment including whilst the procedure was being carried out. The placing of the camera lens of the iPad, at the centre of my body, partially obscured by clothing helps to create a sense of invasion into my personal intimate space and adds to the ambiguous feeling of the piece. The film is a single unedited shot.

In the film, we briefly see the nurse enter the room, her body language shows she is talking to me, setting out instructions. The narrative unfolds, I am left to undress, we see me removing my lower clothing and lying back. The camera directed up at the ceiling as the nurse carries out the procedure.

I think the shot of the ceiling helps to evoke a disconcerting collective memory for the female viewer, who have themselves been in that same position (see portfolio, figure 60). The viewer cannot quite see what is happening, but they are aware of what is going on and that they have being invited to view an intimate situation. The intention in this film was to explore boundaries between public and private intimate space.

Summary

The films discussed in this practice-based research investigate how conceptual and theoretical influences are reflected through new filmmaking practice to explore the boundaries between intimate, private and public space. In exploiting the affordances of the iPad through its filmmaking and editing applications I developed a new way of working that changed my perception of filmmaking.

When reflecting on this research, to me the time-lapse films are overwhelmingly claustrophobic, and tense with the distortions of time adding to the sense of claustrophobia. In this research, I thought that speeding up time was appropriate because I continually felt time was slipping away from me and by showing it speeded up captured a sense of the continual repetition of the domestic. The MemoryLapse film captures a sense of time passing. Viewed on the iPad, they frame a domestic landscape mapping my personal space. The applications used in this research offer unlimited potential for experimentation and contribute to a new framework for visual film experimentation.

An important element in this change was the decision to continue filming between destinations, to leave the iPad recording whilst I was engaged in other activities from driving or walking to attending a cervical screening. This changed how I viewed both the process and the results of filmmaking. In choosing to deliberately not to put myself in front of the camera but to use the camera as my technological eye continually recording, I claim that the iPad in this context can be described as a cyborgian extension of the self.

In the literature review of this thesis I discuss Donna Haraway's work (1984), whose key ideas was that the cyborg signified a challenge to conventional politics that could be used to explore and blur boundaries. Haraway (1984) states that 'The cyborg is a kind of dissembled and reassembled, postmodern collective and personal self. This is the self, feminists must code'

In this context, I have used the iPad to explore feminist discourses that blur the boundaries between intimate, private and public space and in doing so created a new way of visualising these spaces. The film *iPad in my Handbag* (2014) shows the iPad is not only a portable virtual studio, it also acts as a diaristic device mapping my personal space. The film *Smear* (2015) uses the iPad as observer of a personal narrative that takes the private into the realm of the public. The ability to make films, edit and disseminate with ease adds to a sense of flow, and enabled my creative practice to be organic whilst underpinned by new knowledge of the iPad's capabilities.
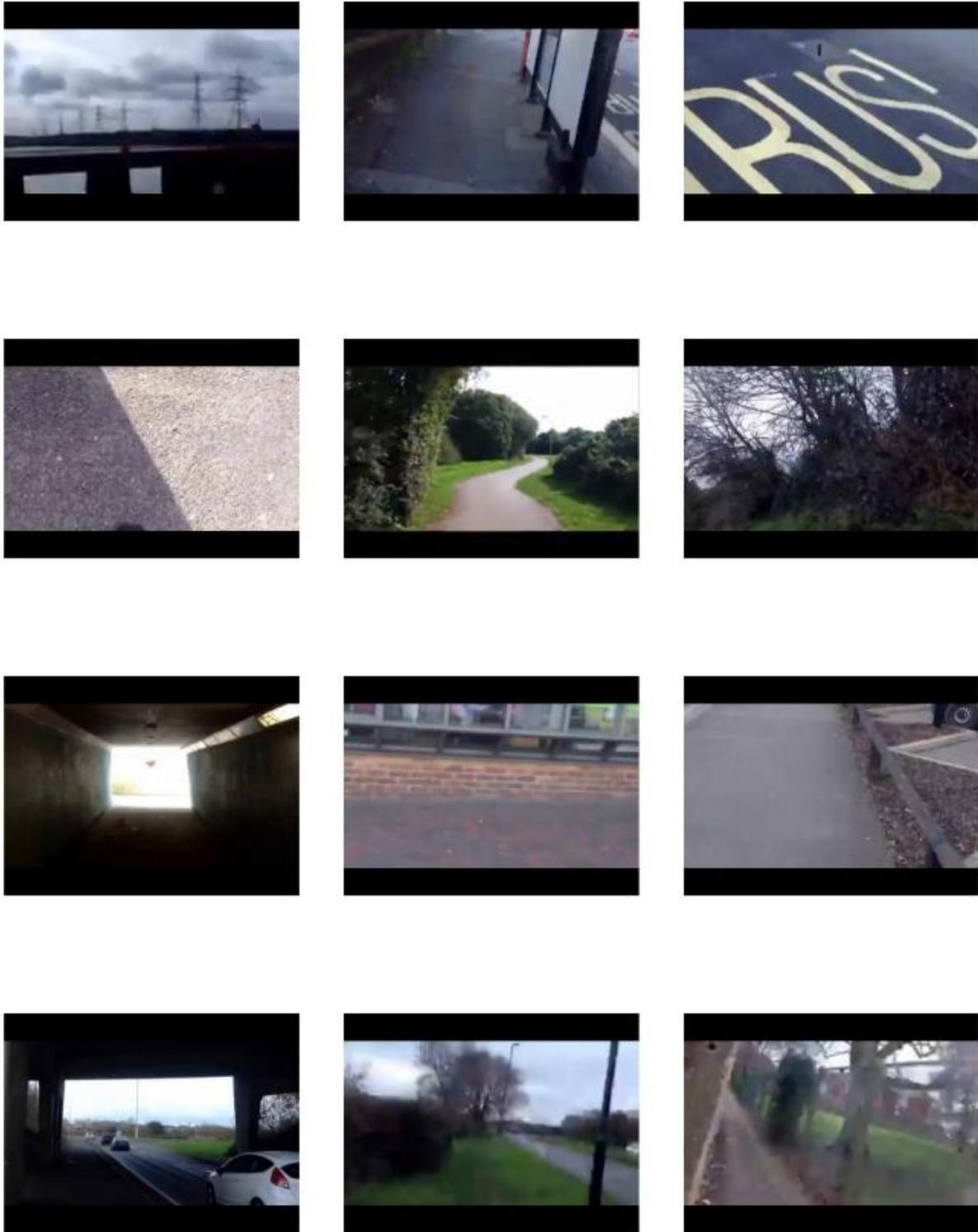
Figure 21. Film stills: Timelapse. 'Walking' (June 2014).

4.1.3 How Does the Portability of the iPad Enable New Practices of Filmmaking?

iPad: Mapping a Personal Journey

This research brings together filmed works that explore a feminist discourse of a personal journey through a series of travel films, that capture my everyday. This research arose whilst in a period of transition moving from the domestic space to new unmapped spaces. The idea of a digital journey that maps my personal space has been explored through this research. The early journeys undertaken in these films were to primarily familiar places, however using the iPad to map and record these journeys enabled me to look at the familiar in a new way and in doing so captured and mapped my personal space.

In the literature review of this thesis (Chapter I, section 1.2.3) I discuss the work of Chantel Akerman, a Belgian filmmaker whose filmic career offered new discourses for cinema, in mapping both the domestic and public spaces Akerman exploited the ordinariness of the everyday. This idea is taken up by Giuliana Bruno (2002) who theorises that film can be seen as a 'cultural voyage that maps geography and art to visual landscapes' (2002:95). Taking this further through discussing Akerman's other works, Bruno (2002:101) extends her theoretical framework of mapping a cultural discourse. *News from home* (1976) directed and featuring Akerman, the film uses primarily static cameras to record the movement of New York City, both street life and subway, Ackerman uses the language of film as a voyage to map the rhythm of the city. A further piece *Les Rendezvous d'Anna* (Meetings with Anna) (1978) follows Anna, a filmmaker as she travels through various destinations, never settling at a destination, investigating themes of home and house and voyage.

These themes are explored through using a geographic filmic approach. In capturing and documenting my surroundings through carrying my iPad in my handbag and strapping it to my body, and carrying round it in my hand, the iPad became a diaristic device for mapping my personal space. These pieces disrupt boundaries between personal and public space. The idea of female nomadic subjectivity theorised by Bruno (2002) expresses the notion of film and travel as a geographic mapping of the external and internal, and in this context, can be directly linked to my creative practice research.

In this context, Bruno (2002:102) suggests that Akerman uses the language of film to capture and give space to the 'in-between spaces of everyday life'. Akerman's (2002:102) body of work moves through 'a map of sites', implying that Akerman advocates a positioning of nomadism, for herself and her work. By this she means that Akerman uses film as a journey mapping both the physical and the physiological landscape to explore feminist discourses.

Figure 22. Film stills: Timelapse. 'Driving' (2015-16).

I made a series of films 'A map of sites' (Bruno, 2002: 102) recording my journeys (see figure 21). After experimenting with different applications, I began using a time-lapse application. When walking, I carried the iPad in my hand, camera pointing outwards as I walked from one destination to another. I set the time-lapse application to a single second, so I could compose each frame as I walked along. When played back this creates a film that is a collage of jumping imagery that flashes before the eye, with each viewing different images are noticed.

I initially used masking tape to stick my iPad to the inside of the car windscreen and began filming car journeys. I began this in February (2014-17) and continued making these films throughout the doctoral period, making a total of 52 time-lapse films (Approximately 80 hours or 4 days of real-time footage). I have edited these films in a single film *Driving. 1hr, 41 minutes, 32 seconds* (September 2018). These journeys are part of capturing my everyday. The space of my car became my personal bubble in the public space of the road. Collectively nothing appears to happen, the footage becomes both fluid, monotonous and repetitive, creating its own poetic flow whilst capturing liminal spaces (see figure 22).

I filmed out of train and coach windows and continued to experiment with timings, both speeding up and slowing down time. At this time, I did not have the patience for slow or still footage. I wanted the speed and clashing of imagery. I have always worked instinctively within my fine art practice, and in the past had the patience to spend hours/days/weeks on a single painting. I no longer had that level of patience and reflecting on this practice, in myself I was unsettled, and, in a period of transition.

Figure 23. Film stills: Timelapse. 'Travelling' (2016).

iPad in my Rucksack

This research was undertaken whilst taking time away from my studies. It is in this thesis because it highlights everything that I claim the iPad is: a portable virtual studio. Before travelling with my iPad across the world, my creative practice moved from visualising and mapping the familiar territory of my domestic space and journeys routinely undertaken to new spaces. Using the iPad to map and visualise personal narratives, it has provided the resources I need to continue my creative practice research.

Initially my creative practice explored the domestic space, before moving towards taking a position of nomadism. At the beginning of my research I felt trapped by economic circumstances that I felt were beyond my control. Like many women after having children I found part-time low paid employment that fit round raising my children. As time went on the relationship deteriorated and added to the feelings of being trapped in a domestic situation in which I felt I had no control.

Eventually the relationship broke down, which led to my taking the children and going to stay with friends. We shared a room for several months before finding alternative accommodation. Moving to new space, I photographed and filmed the new space and began making a series of travel films. This led to a sense of freedom within my creative practice.

However, running parallel to this, my sister's breast cancer returned with a terminal diagnosis. I then found myself making constant trips up and down the country to help care for my sister. As the disease took hold, I took time away from university and moved north to help my sister, leaving my children with their father. Sadly, my sister lost her fight against cancer. Her death was (and always will be) devastating.

For a time, I had no interest in returning to my studies, I simply could not see the point of art, either practicing or observing. I was then offered the opportunity to travel. As my children were now settled with their father, I went travelling. Initially staying with family in the Philippines, I then travelled by myself across Asia. Starting in Thailand, travelling through Cambodia and onto Vietnam. After being away for a couple of months, the overwhelming grief started to shift, fraction by fraction. Slowly my appreciation of the arts returned, followed by a gradual return to my practice and research. After travelling for several months, I returned to England. Since my return, I have not 'settled', staying with family and friends, I am currently living in a caravan, in rural surroundings, and reflecting on this period has been a useful tool to examine and contextualise my creative practice.

When travelling, first to the Philippines, and, then onto Asia by myself, I took my iPad with me, in my rucksack. I continued to make films (see figure 23), draw and paint and take photographs with my iPad. 'A positioning of nomadism' (Bruno, 2002:102) can be understood as using film to map journeys across physical and the physiological landscapes to explore feminist discourses.

Travelling through developing countries has given me a clearer understanding of my own positioning within a feminist context. As a western woman researching fine art practice, I am in a position of privilege. Through my creative practice I have being able to map conceptual journeys through domestic, private and intimate spaces, creating new ways of visualising these spaces with the iPad as my main tool for my creative practice.

Whilst on this journey, I dropped the iPad on a hard-concrete floor in Asia, smashing the screen, however, it continued to work, though glitching occasionally as a film is played back or closing an application unexpectedly. Nevertheless, it continued to function as a virtual studio. By then it was over 2 years old and had been carried around in my handbag through the domestic landscape of suburbia, then in my rucksack across oceans, to desert islands and jungles on the other side of the world.

Summary

The iPad's portability enabled new filmmaking practices to evolve, as my creative practice moved from capturing linear domestic narratives to more disjointed narratives that are connected through the mapping of my changing personal space. When starting this research, I found myself in a domestic situation in which I felt trapped and unable to change due to financial and family commitments. My creative practice explores personal narratives so when a series of events led to a change in domestic circumstances, this impacted and changed the shape of my creative practice research.

Taken as a body of work these films made on the iPad of walking, driving and being a passenger, map a physical geography of my personal space. I was collecting data, of which a commonality is the clashing juxtaposition of imagery. This research began with capturing my everyday, which changed considerably over a short space of time. It is through this research I feel the iPad really became my portable studio.

The iPad enabled me to continue my creative practice and to draw upon and exploit its affordances throughout this period of transition. Even though it had been dropped, my iPad continued to function as a working virtual studio, mapping my journeys and acting as a diaristic device with the capability for experimentation. It enabled me to continue with my practice whether in the jungle or the domestic space.
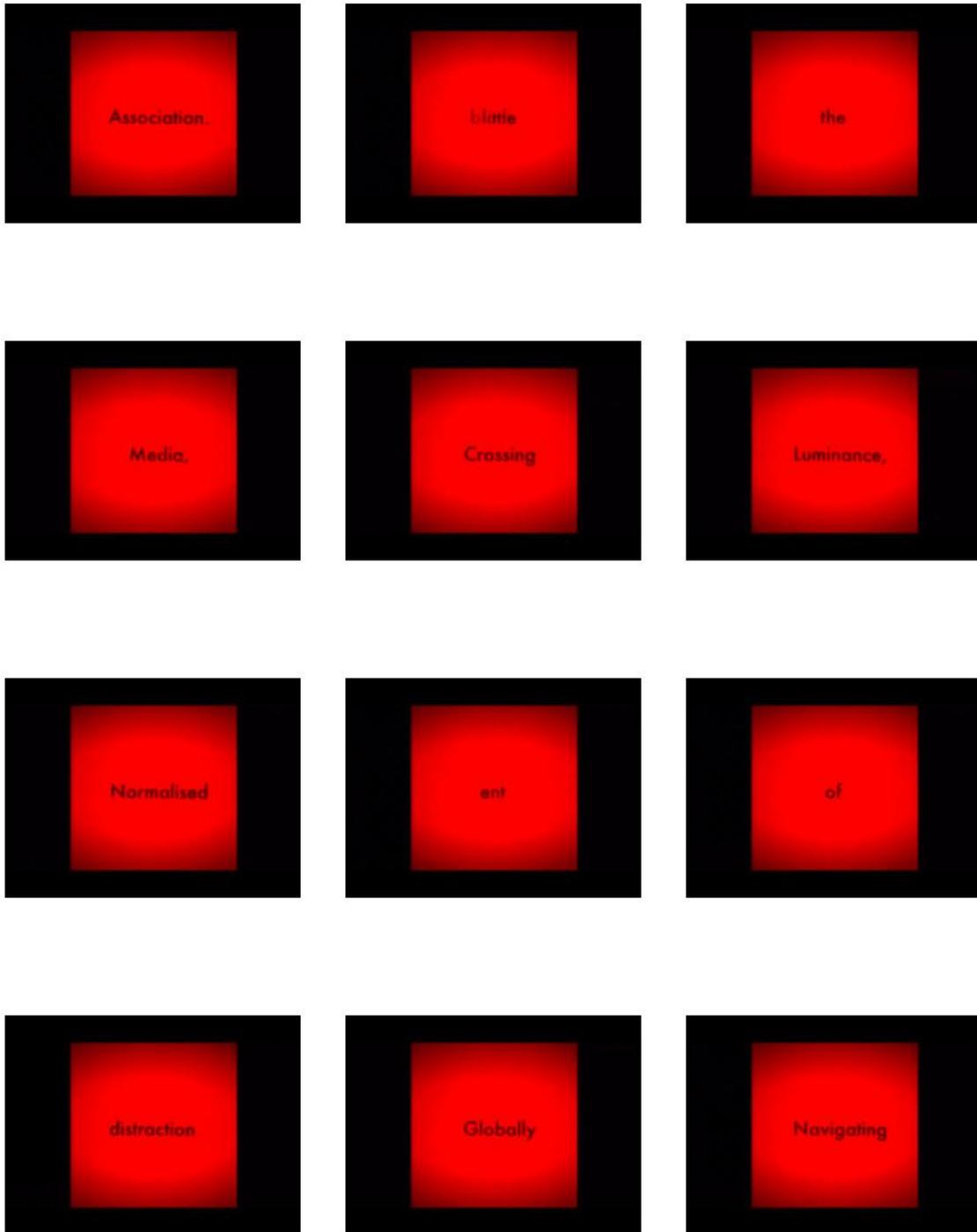
Figure 24. Film stills: Natural Reader. iMovie. 'Prose Flow Theory Association' (2014-17).

4.1.4   How Does the iPad Enable Editing, To Create Layering and Montages?

iPad as Editing Studio

There are two processes to this research: the first process involved making the films, this is followed by the secondary process of editing the films, creating new narratives through the use of layering and montage. These films stand independent and represent knowledge as qualitative data.

My research led me to the filmmaker Malcolm LeGrice (1970) and his film *Berlin Horse* which plays with the narrative language of film. Le Grice (1970) experimented through layering projections and re-filming them, distorting and colouring them, running them backwards and intertwining them with found footage. Through this type of experimentation, LeGrice (1970) achieved a new narrative film language. I have previous experience of attempting to layer film and photography, through projecting super 8 films over fixed images and recording the results with a video camera, however, this process was time consuming and lacked definition and quality through the process. Inspired by the way LeGrice (1970) used film recalled my own early experiments with film and photography, which in turn inspired my creative practice with the iPad. The ease to layer film through applications is a new tool for the artist that enables new practice to develop.

I was inspired by LeGrice's (1970) experiments with film and William. S. Burroughs (1914-97) use of the cut-up technique as a way to explore creating new narrative structures, both used film and language in new ways, by cutting up and layering imagery and language they added the element of chance to evoke new narratives. This made me look at and undertake further experimentation with the footage I had already accumulated. Making these pieces I knew the films would glitch and jump across the screen, although I welcomed these imperfections as I felt it added to sense of disruption. By changing the narrative structure of earlier pieces, such as the domestic time-lapse pieces changed both the context and the linear narrative. This 'fits' with the disruption running parallel in my personal life. Exploring the concept of time, through speeding up and slowing down the footage, unexpected juxtapositions occur adding to the sense of time being fragmented and distorted.

I also used this technique with a section of my written research text, which I printed out and physically cut up the text and re-ordered it, to create the piece *Prose: Flow Theory Association* (2014), (see portfolio, pages 177,178). This piece stands as an independent artwork and enabled me to think about my research as a flowing narrative, which helped me to see new connections within my written research text. I further developed this as an artwork in December 2016, when exploring applications to help me with my dyslexia. The 'Natural Reader' application works through cutting and pasting text that is then played as a film, word by word (see figure 24). The speed at which the words can be played can be altered. The thinking behind the application is that our brains process information faster than we realise. I used this application with my *Prose* text, and re-filmed it playing, then edited it in iMovie. I thought this offered a different visualisation of the written word as an artwork.
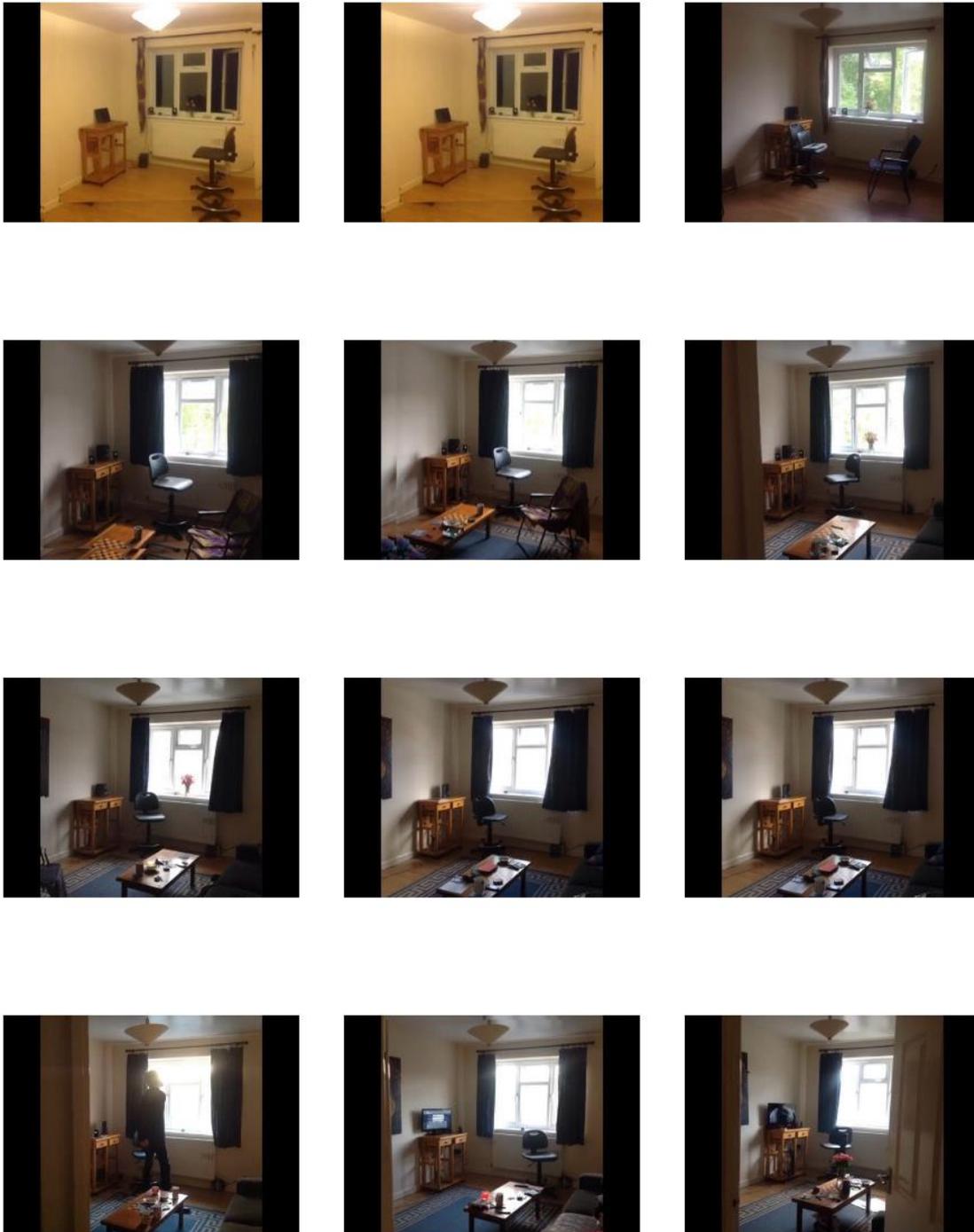
Figure 25. Film stills: MemoryLapse. 'New Space. Lobelia Road' (2016).
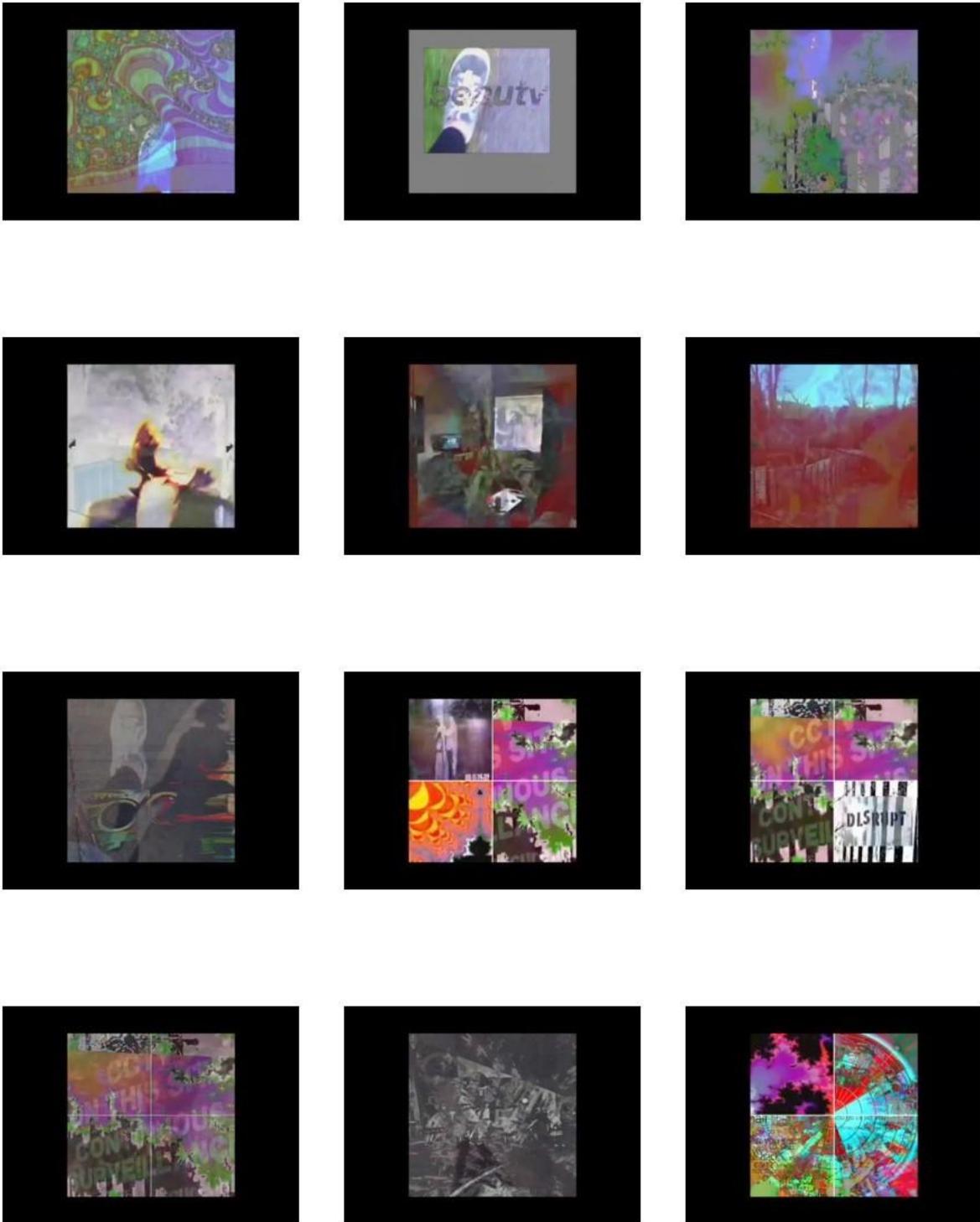
Figure 26. Film stills: Timelapse. MemoryLapse. Fused. iMovie. 'Glitching the Narrative' (2015).

Fusing Together Data

There are two elements to the films in this research, the first includes the process of making the films (see figure 25 as an example of a MemoryLapse film), this is followed by the secondary process of editing and layering the films together (see figure 26). In 2015, many applications were released through the App Store that layered video. As with the time-lapse application, this technology impacted upon my creative practice. The ability to layer video held a fascination for me, historically this could only be achieved through expensive and complex computer programs. Earlier versions (pre-2015) glitched and crashed. I experimented with a cluster of applications choosing to work with the 'Fused' application.

Fused is a simple-to-use application that offers endless possibilities for experimentation and this application enables both digital film and photographs to be layered together. Settings can be adjusted to change both the speed of the film and opacity levels. However, a disadvantage of the application is that currently it only creates 15 seconds of film. To make longer films, I used the Apple iMovie application editing together the 'Fused' footage. This ability to layer film led to an intense period of visual experimentation resulting in several films, including: *Technofeminist* (2015), *Disrupting the Narrative* x 5 (July 2015), *Cutting up the Cut-ups* (July 2015), *Glitching Narratives* (30 August 2015), *Glitching Narratives and other Misdemeanours* (30 August 2015).

The films in this research are a visual montage of several pieces of footage creating new narrative structures and evoking the unforeseen. The idea of the digital journey, mapping a conceptual journey through time and space, capturing physical journeys via application to application, is captured through movement and repetition. Time is both compressed and stretched, they become visual poems containing neither dialogue nor narration, the tone set by the juxtaposition of images. Sequences of film run into and over each other adding to the sense of time and spatial distortion.

Figure 27. Film stills: Timelapse. MemoryLapse. Fused. Animator. Flipbook. iMovie. 'Disrupting the Narrative' (2015).

Disrupting the Narrative

In 2015, I made the film *Disrupting the Narrative* (see figure 27). I have selected this piece to talk about specifically in order to clarify the experimental methodological processes and conceptual approach I took when undertaking this research. At the start of the film, the camera follows the elevator as it goes up towards the light, and then see my feet striding forwards. The first film uses the Timelapse application taken on the London Underground and is layered over a clip from the MemoryLapse film *Settee: Dale Road* (2014). This is deliberately used to imply that I walked away from my previous life. This becomes a train journey as the background, which then becomes the foreground, is layered over time-lapse footage of my kitchen. In the film I am seen on my phone, pacing around.

A film of a walk over 2 miles, at 1 frame per second (fps) is repeated throughout the piece. This footage focuses on and moves between my feet and shadow as I walk along. When making this film I was aware of the ephemeral quality of a shadow, always fleeting and transient, it is a moment in time. It is not 'real' in a tangible sense, it cannot be physically captured, its ephemeral quality can only be captured on film. Through the film the shadow is layered over different personal narratives captured on film, to me it represents moments in time caught but paradoxically gone forever.

The scene changes, following my shadow, to me it is ephemeral and transient, moving over remnants of a past life. The pace of the piece changes, slowing down and speeding up, flickering across the screen, creating a bombardment of imagery. The use of footage from earlier in my creative practice layered over new footage, maps physical journeys to a virtual journey, mapped through creative use of the iPad.

Using the MemoryLapse application to explore linear narratives in the domestic space, I made a series of films, including; *Settee: Dale Road* (2014) (as discussed in section 4.1.1). I used the MemoryLapse application to map a specific space (a settee in my home, figure 17). The second piece of MemoryLapse film was made after a period of homelessness and shows a near empty room representative of the transient nature of 'home'. *New Space: Lobelia Road* (2015) (see figure 25). The empty space gradually fills up with possessions to become a home. A focus of the piece is the window, at times bleached out by light.

The idea of a 'window' is not only a thing that lets in light but also one of keeping the public and private space connected and disconnected at the same time. In more recent times it has been linked to the idea of the virtual window framing the digital landscape. The window becomes virtual, transient, allowing us a glimpse of a new narrative.

The third MemoryLapse film used in this piece is called *Settee: Lobelia Road* (2015), in which I deliberately chose to map the space of my 'new settee'. Reflecting on this piece, again I find myself struck by its transient quality, it is of a space that has gone, it can never be captured again. This film also has two time-lapse films edited into the final piece: the first was filmed on the London Underground and captures the claustrophobic atmosphere. The second was filmed from inside a 1950s BMW sidecar, whilst riding around the Lincolnshire countryside.

The third dimension to this piece is the use of the application 'Animator'. This application constructs film through animating stills. Taking a series of still images from a piece of film in iMovie, I specifically used stills created from the spaces in between film sections. For split second two pieces of film overlap creating an original image. I took screen shots of these images. I then uploaded them to the Flipbook application, which creates a film and, can be duplicated and edited in iMovie, before being edited into the final piece. To create the final piece, I used the Fused application to layer together the footage, then edited the pieces together in iMovie.

Summary of Filmmaking Creative Practice

The data collated in this research shows how the iPad, through its video camera and filmmaking applications, offers unlimited potential for experimentation and contributes to a new framework for film experimentation. In taking an autoethnographic approach to their collection and analysis, the films discussed in this practice-based research explore feminist discourses of personal narratives that blur the boundaries between intimate, private and public space, and in doing so create new ways of visualising these spaces.

I developed a way of working that changed my perception of filmmaking. An important element in this change was the decision to continue filming between my destinations; to continue recording whilst I was engaged in other activities, from driving or walking to attending a cervical screening. This changed how I viewed both the process and the results of filmmaking. I began to think of the iPad as a means to record my day-to-day experiences, personal and private space, and my interactions in public spaces.

My filmmaking creative practice research moved from capturing domestic narratives to taking a more conceptual approach. To me, these films read like a personal diary that has been torn apart and stuck back together in a different order. The early pieces appear to be straightforward, capturing a domestic personal space through a new medium. Influenced by the message 'the personal is political', I made a series of films in and around the domestic environment. These films are very personal to me, and have a transient quality to them, capturing moments in time that cannot be replicated. The iPad is observing and recording as the narrative unfolds.

As my filmmaking creative practice moved on, it became more complicated, building complex layers that have meanings only to me. Through exploiting the affordances of different filmmaking applications, I learnt how to exploit glitches, framing ambiguities in a nonlinear narrative. On reflection these films are a complicated juxtaposition of imagery, lacking stillness, and appearing fraught as they clash and glitch across the screen. I created a considerable quantity of experimental films in this period. (see appendix E).

iPad: Photography, Editing and Printmaking Studio
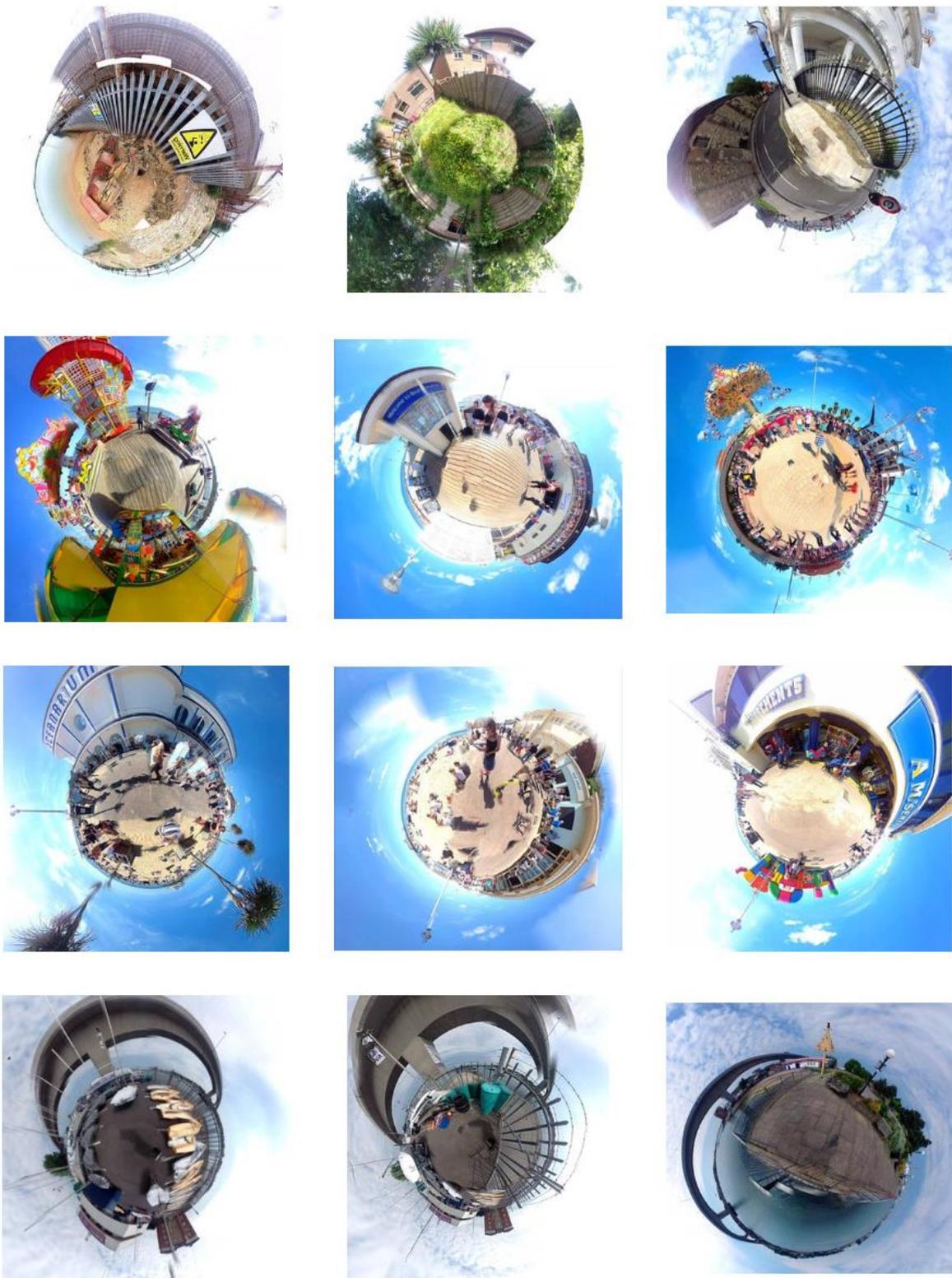
Figure 28. Photographs: 360. 'Exteriors' (2014-16).
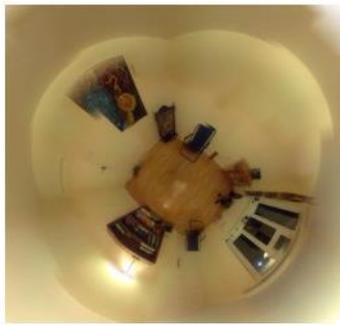
Figure 29. Photographs: 360. 'Interiors' (2014-16).
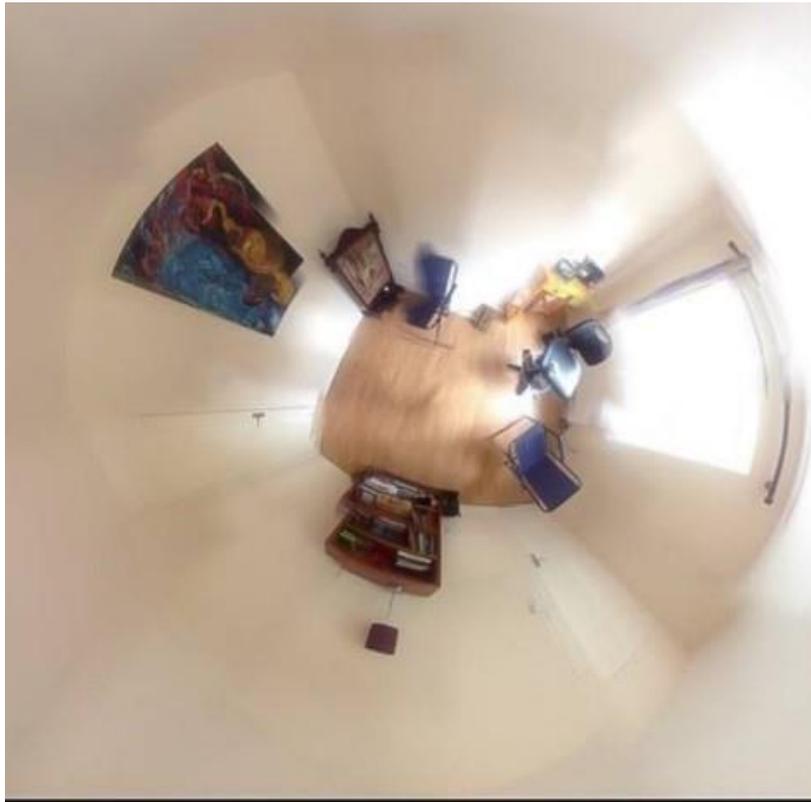
Figure 30. Photographs: 360. 'New Space. Lobelia Road' (2016).

4.2 iPad: Photography, Editing and Printmaking Studio
4.2.1 What are the iPad's Photographic and Editing Affordances?

This research considers if the iPad can offer new visualisations through its camera and photographic applications. My personal hypothesis is that images, developed through research including photographs, are valid forms of knowledge and sources of information that can be classed as data. This research developed through exploratory investigations with the iPad's camera and photographic applications.

Photographic filters are not new, they have been available since the advent of photography. However, what is still relatively new are digital photographic applications with in-built filters, rather than filters being applied as part of the editing process. There are two types of photographic filter applications; the first applies a filter when taking the photograph and the second involves applying filters to the photograph when editing.

To investigate filter applications, I had a set of wide and flexible criteria that included looking at aesthetic qualities, including: looking at composition, how does the application change the composition of the image? The quality of the finished image, is it satisfactory? Or will the image pixilate if enlarged? The quality of the colours; are the colours vibrant or have they become muddy? Other criteria were to explore applications that could offer different ways of visualising the everyday.

A Panoramic View

I carried out a series of experiments taking photographs with different filter applications, using filters when the image is being created rather than as part of the editing process. Examples include, but are not limited to: Liquid Lens, Drawing Cam, CameraFX, Toon Camera and 360 panoramic application. I decided to use a 360-panoramic photographic application to take a series of photographs of both interiors and exteriors (see figures 28,29,30).

360-degree panoramic photographs map space in an innovative way. To create the photograph, a digital on-screen map is followed, which then can either be viewed as a wide-angle panoramic or as a circular photograph. The application offered a new visualisation of space and enabled me to see my surroundings in a new way and led me to seek out photographic opportunities.

I questioned what will happen to this landscape, architecture, cityscape. I went out finding locations to take 360-degree photographs, deliberately choosing mundane everyday locations such as a flyover or bridge to find out what photograph the application would produce. Through repetition I learnt the way to get the full circular photograph was to start on a focus point, to consider lighting, when taking the first frame to ensure the right exposure was captured and to be aware that movement must be smooth and flowing.

I was aware that I had become caught up in capturing the aesthetic qualities of this application. This project was running parallel with my creative film practice. The film project *iPad in my Handbag* (2014) changed my perception of filmmaking. I had become conscious within my filmmaking practice that the spaces 'in between' were as important as capturing the destinations.

This had led me think about filmmaking differently, resulting in carrying my iPad around in my handbag, constantly filming over a two-week period. Filming in this way the camera captured the journeys, presenting a new visualisation of my personal space. This made me think about this application in a different way. To further explore this application, I carried out a series of timed experiments.

I was interested in exploring what the application would capture in small set amounts of time - starting from ten seconds and going up to two minutes. These experiments with time and this photographic application can be seen to draw parallels with my filmmaking practice. The resulting images have blank spaces, time control results in the image appearing unfinished. These experiments enabled me to think about process, rather than end results. These images become part of the journey of capturing new visualisations (see portfolio figure 75).
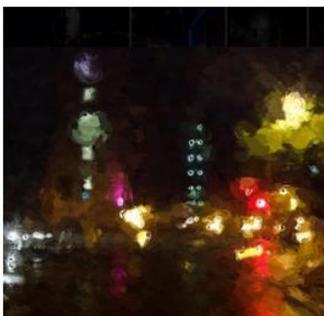
Figure 31. Photographs: Glaze. (2013-15).

Figure 32. Printmaking experiments (2013).

4.2.2 Does the iPad Offer a New Aesthetic?

Introduction

This research brings together investigations with the iPad's photographic image manipulation applications. When looking at photographic images on the iPad, I became aware that backlighting on the iPad, adds a luminescence to images. Luminescence is an aesthetic, that has become part of the experience of looking at images on the digitised screen.

I wanted to explore if this luminescence could be captured away from the digitized screen. With this project, filters were applied through applications after the photograph was taken and became part of a cyclical process rather than as a means to an end. By this I mean the ways in which a piece of work can continually evolve through a series of digital and analogue processes.

Chiaroscuro as Research

To explore if luminosity could be captured through analogue processes, I looked to find comparisons within traditional forms of art practice. A comparison I drew is the process of chiaroscuro. This is because I found photographic images with strong lighting are particularly enhanced by the luminosity of backlighting. This led to investigating ways of creating a body of work that explored the concept of chiaroscuro. Chiaroscuro is the use of strong contrasts between light and dark, usually bold in style and affecting the composition of the artwork. In photography, the effect is often called 'Rembrandt lighting' in reference to Rembrandt's (1606-1669) use of light to draw attention to specific parts of the painting.

This led to seeking out photographic opportunities where strong lighting is central to the image. I went out at night, seeking bold lighting and strong contrasts, thinking specifically about the effects of lighting on the image. I created a series of photographs which I then used to carry out a series of investigations with different applications.

This can be repeated endlessly, a continual process of re-producing the image, the images either pushed to abstraction or showing the multiple changes. Working in this way enabled an organic cyclical body of work to evolve and took the images from the virtual into the physical and back again. I became more interested in how the images changed and developed through these processes, whilst continually returning to the idea of attempting to capture the luminescence of the digitised screen.

4.2.3   Printmaking

To develop this research, I looked at analogue processes. Throughout my creative practice, I had several projects on the go simultaneously. Some projects were more structured than others, examples being; self-portraits, taking 360 panoramic photographs and filmmaking. Other smaller projects emerged through experimenting with photographic image manipulation applications, including but not limited to; Cut & Paste, iColorama and Glaze. I have chosen these applications as representative of the vast array of image manipulation applications on offer. It was only through experimenting and learning what these types of applications could offer, that I was able to consider how or if I would use them within my creative practice.

From these experiments, new considerations came about, an example being my use of the Glaze application (see figure 31). Glaze is an application that remediates painting. It is split into a selection of filters that produce different styles. As a painter, I found the images produced through these applications aesthetically pleasing and had their own qualities but felt that because they were remediation's of painting, they lacked depth. This raises questions of the legitimacy of new media digital art. This is addressed further through the digital integrity section of this thesis (section 2.1.2).

From these experiments, I selected a series of bold, high contrast photographs, that I decided to use for printmaking. The printmaking technique I chose to use was an image transfer process, that had its own analogue qualities. Using this process, I was interested in finding out if I would lose all the qualities of the digital image, or would the pieces develop their own qualities. Using this process, I produced a series of prints on paper. I found the prints did have their own unique qualities, partly in that each print was a one off, it could not be reproduced the same again.

Although I was primarily concerned with images on the digital screen, as a print maker, I intuitively look at images and wonder how they will print, both digitally and through analogue processes. Using the 'Glaze' application, I apped and laser jet printed a selection of photographic images and I painted and drew on to them.

These experiments also involved taking photographic images to printmaking (see figure 32). I experimented with image transfer printmaking techniques. An expectation from this creative practice was to translate images from the iPad into physical original pieces of artworks. I felt that by taking photographs that had filters applied, then digitally drawn and painted onto, printed through analogue processes, removed the work from remediating painting to creating original artworks.

Summary

This research explored if the iPad can provide a new aesthetic and offer new visualisations through its applications. Photographic applications do offer new visual aesthetics for the artist. Filters applied when taking a photographic image or when applied afterwards as a part of the editing process are both intuitive, easily accessible and offer infinite variations. As a painter, I found the images produced through applications that remediate painting aesthetically gratifying, but felt they lacked depth. However, I believe as part of a cyclical process, photographic filters and image manipulations can aid creative experimentation.

In my view there were aspects of this research that were successful, for example, I produced a portfolio of aesthetically pleasing 360-degree panoramic photographs that present the familiar through new visualisations. These photographs could not have been created before the arrival of this technology.

This research made me think about the luminosity of screen work being a new aesthetic. Some criteria of this research were to explore if luminosity could be captured away from the digitised screen through digital and analogue processes. On reflection the analogue processes I chose to use was not likely to produce a successful outcome. This is because without backlighting the luminescence offered by the iPad cannot be directly recreated away from the digitised screen. However, comparing luminescence to chiaroscuro enabled me to develop a new way of working within my creative practice. Using this cyclical process helped to shape an interesting body of new practice.

I felt some pieces were more successful than others, some I felt became over worked. The physical and digital merged, though paradoxically separated through physicality, subject to unlimited changes and reinterpretations. It was the cyclical processes of experimentation that became central to this research and facilitated new ways of developing my creative practice through the iPad and its applications.

Another expectation from this creative practice was to translate images from the iPad into physical original pieces of artworks. The decision to take images through to printmaking enabled my creative practice to develop beyond the digital.

Figure 33. SketchClub. Top: 'Bus Stop' (2015). Bottom: 'Bus Stop II' (2017).

Figure 34. Photograph: SketchClub. Cut & Paste. 'There and Back Again' (2017).

Figure 35. Text on Photograph. Photoblend. iColorama. 'Cutting up the Cut-ups' (2015).
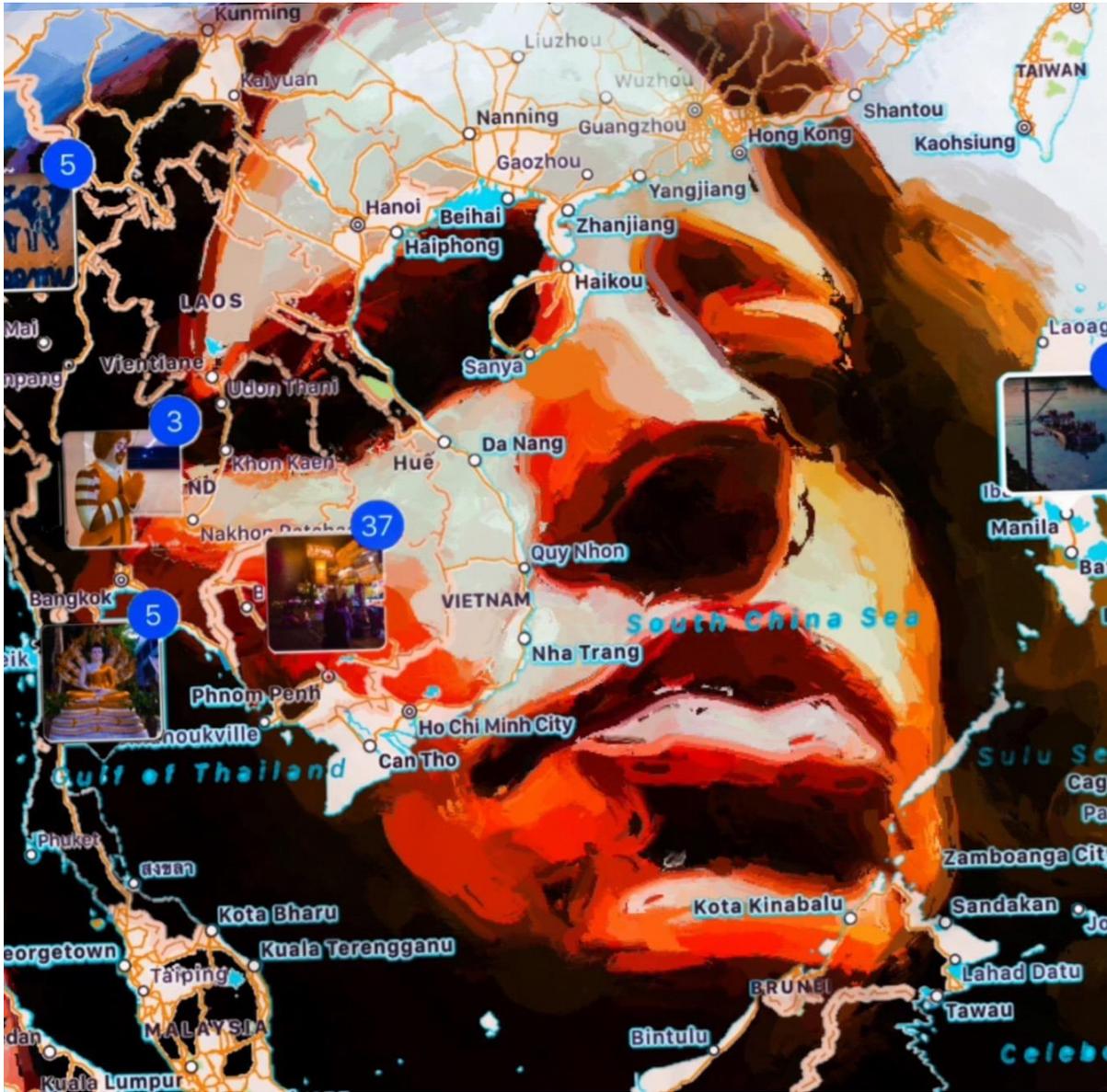
Figure 36. Photograph. Procreate. Cut & Paste. 'There and Back Again II' (2016).

Figure 37. Photograph. Glaze. iColorama. 'Away to Asia I' (2016).

4.2.4 Post Production - How Does the iPad Enable Photographic Editing?

Introduction

This research brings together an investigation of the iPad's editing capabilities. When undertaking my creative practice, I created a series of digital recorded drawings, drawings, paintings and photographs, that can be added to and edited, deleted, uploaded, downloaded and/or printed. Artworks made on the iPad can be edited in many ways, these include in-built editing options for photography and applications such as Photoshop Express, iColorama, Cut & Paste and iMovie for filmmaking, recorded digital drawing and paintings. Editing can include but is not limited to; using the undo feature, changing a specific part of a painting or drawing, layering drawing and paintings together to create new compositions. It can also change the painting completely enabling the image to metamorphose into a new image, whilst keeping a copy of the original (see figures 33).

The option to zoom in and out of a virtual painting aids the sense of perspective, but it is different from the physicality of stepping back from an easel. A significant difference with virtual painting on the iPad, compared with the physical act of painting, is the undo feature. Mistakes or changes made on physical painting can have a major effect, from restarting work to waiting for a colour or layer to dry, or the mistake can be worked through to a satisfactory conclusion. With virtual painting mistakes can be rectified immediately, this changes outcomes, offering new options. A virtual drawing or painting can be saved at different points throughout the process or taken back to the starting point. This can totally change the direction of a piece of artwork and has implications for creativity. By this I mean, the ability to undo mistakes rather than work through them can change the end results and can be seen as taking away from the learning process of working through mistakes.

An image can be saved to the iPad's camera roll and the application's gallery. A saved image can be treated in numerous ways, filters can be applied, and settings can be adjusted to change the aesthetics of the image, including, but not limited to; cropping an image, changing colour through tone, hew and saturation. Recorded drawing and paintings can be edited in applications such as iMovie and PicPlayPost, I used these applications to edit and present work.

Cut & Paste Applications

Another element of the editing process can include applying photographic filters to images and using applications to layer images together. Examples of layering applications include Cut & Paste, Painterly and Photoblend. These applications work by layering images to create new compositions. The Cut & Paste and Painterly applications work by enabling the precise cutting of sections of images and pasting over another image, leaving a transparent layer, several layers can be built up onto a single image. The Photoblend application layers two images together creating a new image, this is an imprecise method of image creation and adds the element of chance to the process. This can be a way of creating compositions through experimentation, that I found enabled an organic way of working to evolve. I began using screenshots of the iPad's in-built photographic geo-system, as a layer for photographic image manipulation. Photographs taken on the iPad are pinned to the map, in folders showing the number of photographs taken at a specific location. Through experimenting with different editing and layering applications, I was able to create a series of images, that to me represent a changing narrative, mapping both my physical and conceptual journeys, building layers of meaning into a single image (see figures 34,36).

Summary

The iPad enables editing through its in-built functions and applications that facilitate new ways of working, correcting mistakes and image and film editing. Whilst editing artworks is not a new thing, the iPad brings all the tools for making and editing into a single convenient device. An example of this that has implications for changing the creative process is the undo feature of digital drawing and painting. The range of editing applications enable both precise and imprecise methods for the visual experimentation of the creation of images.

iPad: Sketchbook

Figure 38. Examples of drawing and painting. SketchClub. Procreate (2013-17).

Figure 39. SketchClub. 'Mr C' (2014).

Figure 40. Procreate. 'Life drawing' (2015)

4.3 iPad: Sketchbook

4.3.1 Acquisition - Tools, Techniques and Processes: What Are the Affordances of the iPad to Draw and Paint?

Introduction

This research contributes to my investigation of the iPad and its applications, which thereby allows consideration as to whether these new digital tools facilitate new creative practice. As I have chosen a reflexive approach to this research project it was important that I established how my personal practice is situated. My personal belief is that the iPad is a continuation of my fine art drawing and painting practice and is underpinned by observational drawing using traditional methods and techniques. In this thesis, I define traditional drawing as mark-making on paper and painting as applying paint to canvas or wood.

Throughout the doctoral period, I carried my iPad around in my handbag, it was available for me to access at any time, to be able to respond to my environment immediately. Drawing and painting is an integral part of my creative practice. My digital sketchbook became a visual journal, recording my everyday (see figure 38). The iPad as sketchbook is part of the process and methodology that brings the work into existence. It transcends the physical studio through its portability, its tools offer unlimited resources for drawing and painting.

For a number of years, I have used the iPad and its applications to explore the potential of digital practice. I had to consider how I was going to approach this investigation. This included developing a system for testing applications, to explore whether new digital tools could offer new drawing and painting methods and techniques. I chose to test these new tools through projects based on traditional artistic subject matter, developed through observational drawing including: drawing from life to capture both domestic and public spaces, portraiture (see figure 39) and self-portraiture in to attempt to capture a sense of self. Use of self-portraiture, and drawing from life, including life drawing (see figure 40), has been an ongoing part of my practice and research, both to develop my observational drawing and painting skills and in the hope of capturing the essence of the person or place I am drawing or painting.

The iPad's touch screen enables pinching, spreading, and stroking gestures, its digital capabilities replace the need for the physical pen, brush or paint. Through its applications it provides an endless supply of virtual paper, a virtual palette of colour, tone and hue and clusters of digital tools, including, but not limited to paints, brushes, pens, pencils, charcoal and pastels. For this research, I mainly used the ArtRage, Procreate and SketchClub drawing and painting applications. These are sophisticated drawing and painting applications. To explore the different applications potential, I initially carried out a series of experiments, and then continued to use these applications throughout the doctoral period.

Figure 41.ArtRage. 'Life drawing' (2015).

Figure 42. ArtRage. 'My Space: My Bed' (2015)

.

ArtRage has a broad and sophisticated range of tools, including a large selection of brushes, knives, canvas sizes, textures and a wide palette of tones and hues and textures. A feature of ArtRage is that a reference picture can be chosen from the iPad's photograph folder and digitally pinned to the canvas, where it can be used as a trace or reference image. It has a wide palette of tones and hues, as well as paint and canvas textures. The virtual palettes do simulate painting, colours can be mixed and layered to create the appearance of texture on the digitised screen. Paints include watercolour, oil, or acrylics. With each type of paint, its quality is remediated, for example oils can appear to be translucent or thick and impasto, watercolours can be soft and flowing.

Painting on the iPad is different to the physical act of painting. The iPad is sketchbook sized, and keeps the gestures to hand movements, rather than the physicality of the whole body when working at a larger canvas. I found gestures used for creating on the iPad are not the same as gestures for painting. I would not paint on a canvas the size of my iPad, I would predominantly choose to paint on at least an A2 sized canvas at an easel, standing away from the easel to work and to help to clarify my sense of perspective. When painting this way, my hand gestures are different to those when using the iPad, however, using new hand gestures did not take away from the experience; instead it enabled, a new artistic experience.

When drawing and painting on the iPad, I found it does not take long to achieve a sense of flow. To draw and paint is to extract the mental image, to concretise it and take it to the realm of the physical. And now, with the advent of technology, a virtual representation is possible. When undertaking this research, I found it takes a small amount of time to become accustomed to the act of making a single gesture, to increase or decrease the size of an image or to flick from one application to another. I initially used my fingers, for drawing and painting but found I could not get the precision I wanted. I then began using different styluses and continued to use styluses throughout my creative practice.

I used this application to create a series of artworks, including portraits of family and friends and life drawing (see figure 41). In these paintings I mainly used the paints as impasto with a knife tool to create the impression of texture. However, whilst texture cannot be recreated away from the digitised screen, ArtRage does create the appearance of texture on the digitised screen.

However, I found there is a flatness to the painted digital image, texture can be simulated but not reproduced. I found digital painting to be particularly 'flat'. On the screen, drawing and paintings can have the appearance of texture and depth, but this is not reproduced with printed image. It is with the printed image that the difference is most evident. Nevertheless, as a significant proportion of new media iPad art is viewed primarily on the digitised screen, the simulation of texture is part of the new aesthetics of screen work.

Contemporary British artist Tracey Emin, who rose to prominence as part of the YBA (Young British Artists) creates works that are both autobiographical and confessional. Emin's piece *My Bed* (1998), lays out her personal space, moving it from the home and the domestic to the gallery. The reason for choosing this piece of work by Emin, is because it makes no apologies for what is being presented. It is both autobiographical and confessional. This piece informed my creative practice and how I think about my personal space in relation to my creative practice and led to me creating the piece *My Space: My Bed* (2015) (see figure 42). This piece was made when I was sharing a room with my teenage boys and to me represents a marker of that transient time. The bedroom is often associated with private space, but sharing this space with teenagers, the sense of privacy of the room was removed and unsettling.
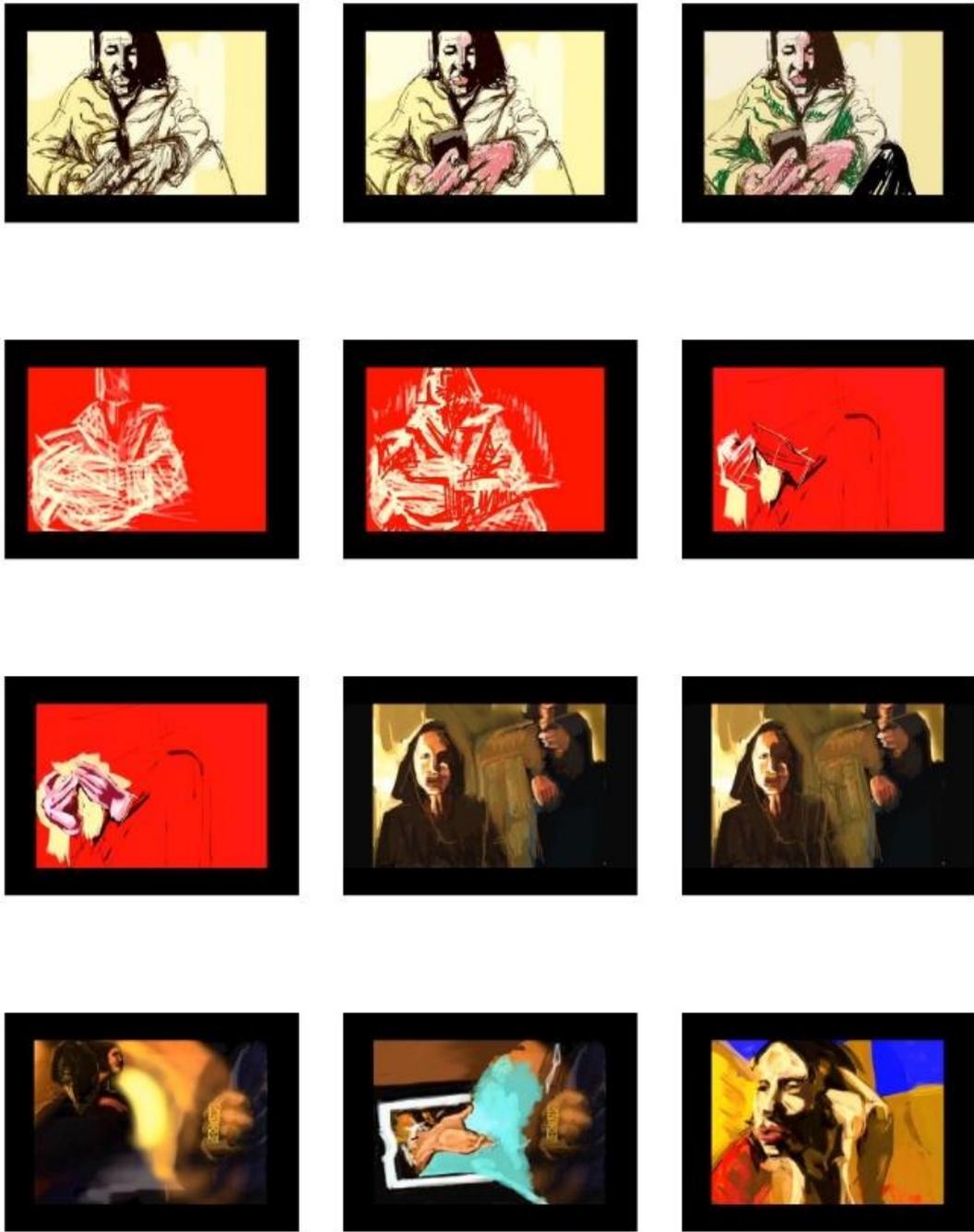
Figure 43. Screen shots: SketchClub. Recorded drawing. 'Self-portrait' (March 2015).

Figure 44. Screen shot: SketchClub. Recorded drawing. 'Self Portrait' (2015).

4.3.2   Visualising the Self: Self-Portraiture and New Digital Practice

SketchClub and Procreate Applications

The self-portrait has traditionally been used by artists as a way of establishing a definition of one's self. It is used to practice drawing and painting skills through observation and has been ongoing throughout my creative practice. It is a tradition that is evident throughout history and continues into the digital age. I chose to use self-portraiture for this research because it takes a historical tradition to a new virtual space whilst exploring new digital tools.

An American artist who explored self-portraiture primarily through the mediums of charcoal and pastels on paper is Susan Hauptman (1947-2015). A reason for looking at the work of Hauptman is because her work stays within a remit of traditional self-portraiture, whilst creating images that challenge notions of feminine beauty. By means of observational drawing she uses tone, line and shadow to create her stark and honest self-portraits. Working primarily on paper, using charcoal and pastels, and later gold leaf, wire mesh and thread, she created stark, androgynous self-portraits, in which draftsmanship is a key component. Hauptman's work is not concerned with the sexualisation of her subject matter, herself, which is the reason I found them so appealing.

Between January and March 2015, I used the 'SketchClub' application to draw a series of recorded self-portraits (see figures 43,44). I continued to use this application throughout the doctoral period. A reason for choosing this application is because it can record the process of drawing and painting. Recordings can be saved, to be continued with later, uploaded or saved to be edited elsewhere. This ability to record drawing and painting creates a hybrid between artistic disciplines and directly crosses conceptual boundaries kept in place in the physical world.

Further reasons for using this application, after testing other applications, is due to its reliability and speed. I found it easy to use, it has a clear interface and provides a range of digital tools, including a colour picker and layer options. It responds quickly, zooming in and out from the canvas. It also has an undo option, which creates a significant difference between virtual painting on the iPad and physical painting. Mistakes or changes made on physical painting can have a major effect, from restarting work to waiting for a colour or layer to dry. With virtual painting mistakes can be rectified immediately.

I used the Procreate application to produce a series of self-portraits (November 2015) (see portfolio, figure 101). Procreate has the ability to record work in progress and has an intuitive interface, offering a wide range of tones and hues. However, whilst it has textured features, unlike the ArtRage application, the appearance of textures offered are flat layers of colour, a limitation of this application is that paintings appear flat.

I was interested in attempting to capture a sense of self. I used strong lighting to take reference photographs and wanted to achieve a strong sense of light and dark within the pieces. I was particularly interested in exploring a subtler colour palette. In making the background black, the portrait is stark and unadorned, and the focus is on a sense of light within the portrait.
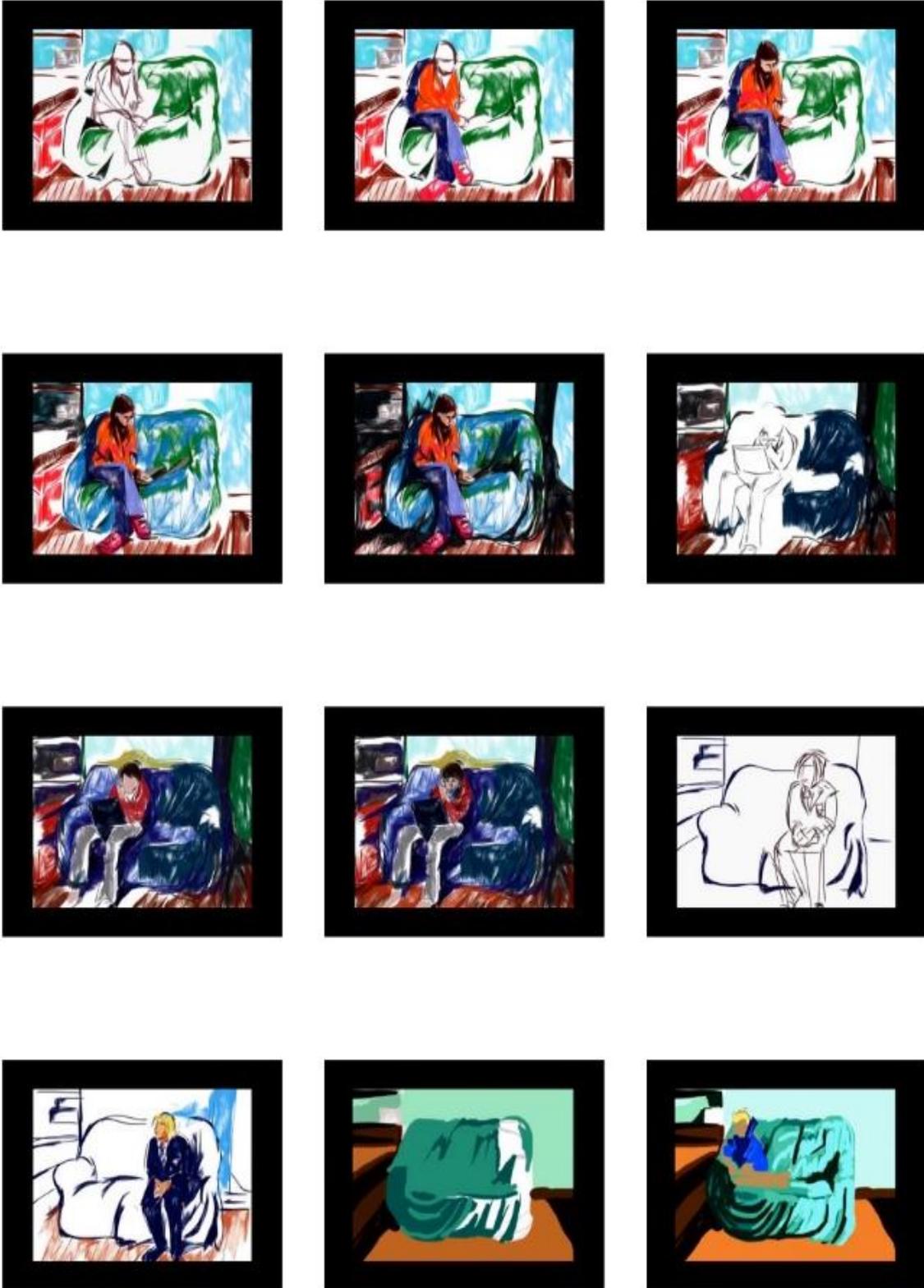
Figure 45. Screen shots: SketchClub. Recorded drawing. 'Settee, Dale Road' (March-April 2015).

Figure 46. Screen shot: SketchClub. Recorded drawing. 'Settee, Dale Road' (March-April 2015).

4.3.3 Visualising Space: The Settee: A Spatial Investigation

I had used the MemoryLapse application to make a series of time-lapse films (as discussed in section one 4.1.1). One of these films focuses on the settee in the home environment. This is a very personal film, over the space of the film, we see it as a space central to the home, family members and friends come and go. At times, the settee is physically empty but carries traces of the life being lived within and around the space. I decided to create a recorded drawing of the same space, using the SketchClub application.

This piece maps a physical space, to me it represents different meanings, it looks both inwards and outwards; through the cognitive act of drawing it looks inwards at the domestic narrative as an intimate scene unfolds (see figures 45,46). The ability to directly upload the work online via online platforms enables the work to be moved beyond the interior and thus blurs the boundaries between interior and exterior, taking the domestic space into the realm of the public. In this context, both public and private domains are entwined in new ways – the private can become public on a global scale from the confines of the private through the Internet.

The ability to record the work in progress, save and continue later, enabled a narrative to unfold within the piece. As this work developed, it became more than drawings of a space, it became about exploring tensions which manifested in the domestic domain. It explored the ambiguity around concepts of public and private space. In addition, it allowed for exploration of relationship binaries such as: ease and unease; comfort and discomfort; and love and loss. A year after completing this piece, I no longer lived at the location where the film was originally recorded, though I did return and photograph the space, despite the settee been removed. It was then a blank space. Reflecting on this piece I am struck by its transience; to me it is a poignant documentation of a specific time and space that has changed and cannot be captured again.

In this piece, I felt it became more about exploring the domestic space than the tools used to create it. I feel this is significant because by the time I came to do this research, I had prior knowledge of the application's capabilities and knew how to exploit them. The process and the work enabled the opportunity to work creatively.

Summary

In researching the iPad's affordances to draw and paint, I set criteria that involved exploring applications, that I felt achieved certain aesthetical qualities including successfully realising the subject matter through colour, composition, tone and texture.

I tested drawing and painting applications and compared differences in traditional and new digital media and found significant differences, that for me, changed the way that I draw and paint. The differences include using the undo feature to correct mistakes and the use of recorded drawing that facilitates a narrative to evolve through process. This is discussed further in the findings chapter of this research.

Chapter V

Figure 47. Screen shot: Timelapse. 'iPad in my Handbag' (2014).

5   Summary and Findings

5.1   Summary

The impetus for this research came from wanting to instigate if the iPad can fulfil the function of a studio for new and existing creative practice. I have demonstrated through this research that my creative practice has been liberated by the iPad and its applications. The iPad has provided several tools for me to create a substantial body of new work, through developing new creative practice, this is my original contribution to knowledge.

In the preceding chapter of this thesis four artistic disciplines have been analysed, which include; filmmaking, photography, drawing and painting. Consideration has been given to new visualisations of intimate, private, domestic and public space that explore feminist discourses. This research is presented as a creative practice review and portfolio. In order to substantiate my research, an autonomous case study of contemporaries and peers working with the iPad as part of their creative practice has been included.

I have come to think of my iPad as a vast virtual studio, with a seemingly endless and cheap supply of paper, canvas, photographic paper and film, paints, pens, photography and film editing equipment. Essentially the iPad embodies a studio, a portfolio, a gallery and networking device. There are however cost implications, namely the iPad itself (approximately £300) as well as the applications. In my case the choice of additional applications for example: SketchClub at a cost of £2.99, ArtRage £4.99, Procreate £4.99, Timelapse £1.99. The outlay in my opinion is worth it as it enables access to a vast amount of resources.

Throughout the doctoral period, I created several thousand images, using a combination of photography, drawing and painting and over 200 films. The experience has changed my mindset, both in the way I make work and the awareness that it can be saved indefinitely, through the ease and accessibility of virtual space.

The findings of this research provide insights for further exploration of new media iPad creative practice and are presented under the following headings:

- The duality of the iPad as both a complementary tool and a replacement tool
- The concept of endless storage space as a medium in its own right
- The discreet and convenient nature of the portability of the iPad and its link to feminist art practice
- Changing concepts of time and the ability to easily make, edit and layer film
- The impact on creative practice of recorded drawing
- The ability to distribute work quickly and easily
- The ability to produce genuinely original artwork despite accusations of machine replicability
- The ability of the iPad tools to capture liminality – and its links to feminist concerns
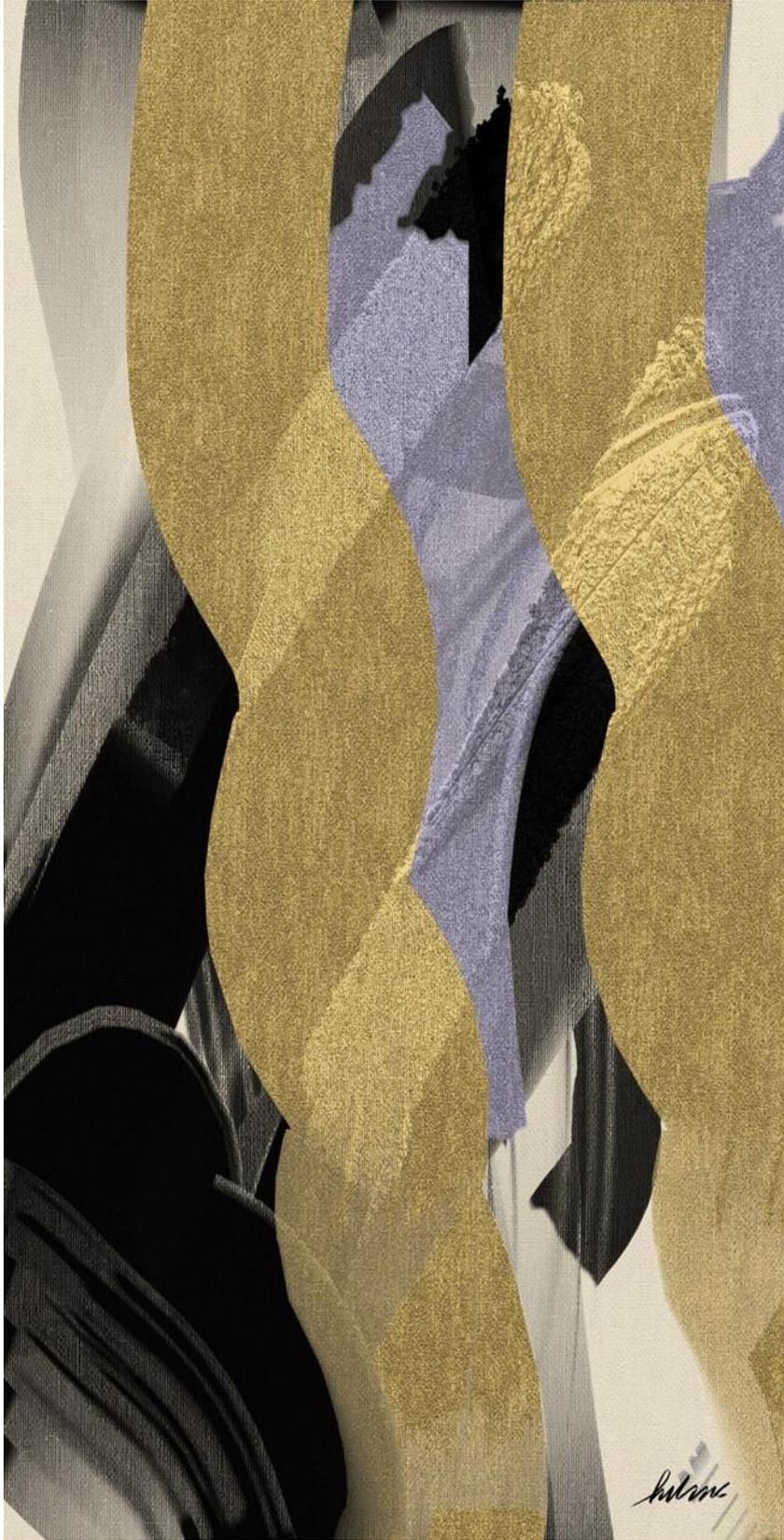
Figure 48. Goldberg H. Procreate. (2017).

Figure 49. Sutton, A. Digital Print. Procreate. Marker pens. (2017).

5.1.1 The Duality of the iPad as both a Complementary Tool and a Replacement Tool

My research highlights the fact that the iPad is being used as a tool for new creative practice by other artists. Online artistic communities have developed their own codes of practice (as discussed: section 2.1.2). In particular, the Facebook group 'iPad Artists' has a stringent membership policy, that ensures all members are artists, and will adhere new ethical codes of practice. The range of artworks is immense in terms of both subject matter and the diversity of skill. Feedback is both encouraged and instantaneous, alongside is an ongoing dialogue between members sharing information regarding new applications, updates, devices and tools.

A factor highlighted through this research is that some artists are using their iPad's as their main artistic tool to create and disseminate iPad artworks. Helene Goldberg (see figure 48) is a good example of an artist with a traditional artistic background, who has replaced all other media with the iPad. Goldberg creates new media iPad artworks that explore drawing and painting applications and disseminates her artworks through social networking platforms.

Another finding of this research found that other artists, for example, Andrea Sutton (see figure 49), use their iPad's as a tool that complements their busy lifestyles and have embedded their use of the iPad alongside other more traditional tools for drawing and painting.

For me, the iPad has replaced the need for a physical studio, consequently, my own creative practice has been transformed to a primarily digital practice. I am no longer concerned with how I shall acquire materials or storage space for artworks as my virtual studio provides a seemingly unlimited supply of media and space. The iPad has brought all the different elements of my creative practice into a single device.
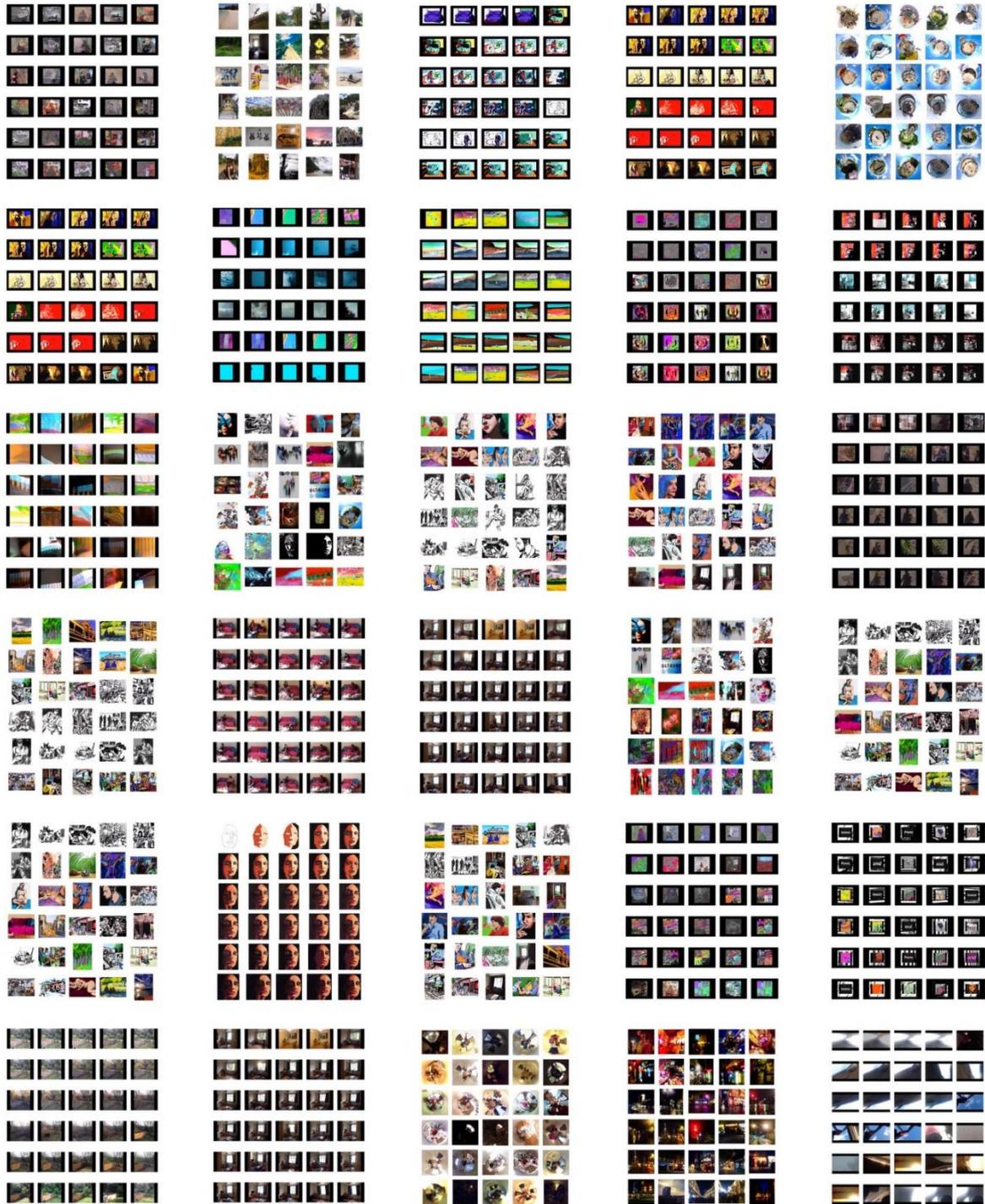
Figure 50. Screen shot: '900 Images, Compressed' (2018).

139

5.1.2 The Concept of Endless Virtual Storage Space as a Medium in its Own Right

Virtual space is an integral part of the iPad's architecture. It is both a medium and a commodity; artworks can now be stored, retrieved, transferred, streamed, compressed and navigated and is unique to new media. Virtual space can be seen as an interface to a database, that is both navigational and can be assessed at any point, which contributes to the idea of databases having no start, middle or end points.

I have come to think of virtual space as a seemingly endless and cheap supply of paper, canvas, photographic paper and film, (figure 50) *Nine Hundred Images Compressed* (2018) highlights this point. This collage consists of a selection of individual images from my research, saved on my iPad, that are displayed throughout this thesis. The substantial amounts of work that I have produced over the doctoral period, if made using physical media would have surpassed a thousand pieces of paper, yards of canvas, meters of film, photographic film and the cost would have been considerable, running to thousands of pounds.

5.1.3 The Discreet and Convenient Nature of the Portability of the iPad

A finding of this research is that like me, other women artists value the iPad's portability, as it is essentially a virtual studio that enables new timeframes in which to work. Here are some examples from the case study: New Mobile Practitioners, that support my claim:

> iPad has helped a full-time nursing mother like me to stay creative and produce tons of artworks while taking care of my baby!
>
> I use my iPad throughout the day - in my breaks at work to sketch or plan my next textile piece. I love how versatile and intuitive it is.
>
> Because of its portability and interface, it has allowed me to make my artwork without being tethered to a computer and that has provided me the freedom to create during the in-between moments.

With the iPad as the main tool for artistic production, my creative practice has been freed from the need of a physical studio space. My iPad is a video camera, camera, digital sketchbook, it is a visual journal, recording and documenting my surrounding spaces. Throughout the doctoral period I made a conscious decision to carry my iPad around in my handbag. Carried around in this private space, my iPad was always with me and ready to respond directly to my surroundings.

When making the film *iPad in My Handbag: Two Weeks of my life Compressed* (February 2014), I wanted to exploit the discreet and convenient qualities of the iPad and for the viewer to feel they had been invited into a personal and intimate female space, in order to explore feminist discourses around boundaries between personal and public space.

5.1.4 Changing Concepts of Time and The Ability to Easily Make, Edit and Layer Film

Through filmmaking I explored concepts of time and whilst our experience of time can only ever be of the present moment, our perception of time is in continual state of flux. Through documenting my everyday domestic space (see figures 15,16,55,56), and making the films: *iPad in My Handbag: Two Weeks Compressed* (2014) (figures 1,53,129,184,185), and *Driving. 1hr, 41 minutes, 32 seconds* (2018) (figures 22,64,65) I chose filmmaking applications that visually distort and compress time, focusing on time-lapse applications. This enabled me to create narratives linked to the social time of everyday life and the perception that in contemporary technocratic societies time is speeding up.

My creative practice research has been underpinned by a critical visual ethnography (Pink, 2001). Through exploring filmmaking and editing applications, my research led me to the filmmaker Malcolm LeGrice (1970) and the author and artist William. S. Burroughs (1914-97) (as discussed: section 1.4.1). Both developed experimental ways of working in their chosen mediums of film and language, that expanded the artistic landscape. This research inspired me to undertake further experimentation with the footage I had already accumulated and develop new ways of working within my creative practice.

My filmmaking changed from documenting my everyday through linear narratives to taking a more experimental approach. This series of films included: *Technofeminist* (2015) *Disrupting the Narrative* (July 2015) and *Cutting up the Cut-ups* (July 2015) (figures 26,27). The ability to easily edit and layer film to create montage adds the element of chance to bring together disparate elements that generate ambiguity where a liminal space opens, and new narratives reside. I describe this series of films as visual montages, that represent knowledge as data. These pieces are visual poems containing neither dialogue or narration and explore the notion of time as fragmented. The tone is set by the juxtaposition of images. Sequences of film run into and over each other adding to the sense of time being fragmented and distorted.

I further explored the concept of time as a scarce and transient notion through filmmaking, an example being the film *Walking* (2013), (as referred to p90, paras 2,3). This piece captures my shadow, its transient and ephemeral quality represents moments in time caught but paradoxically gone forever. A further example of this the MemoryLapse film *Settee* (figure 17) the deliberate choice of a timescale lasting several months captured a sense of a transient space changing through time. Through filmmaking the perception of time can be visually deconstructed, fragmented and condensed.

My research of photographic and film/video filter applications highlights the infinite ways both image and film can be manipulated. Whilst image and film manipulation are not new, all the processes for image and filmmaking can be contained within a few applications, that are easily accessible and intuitive to work with. Two examples that I have focused on in my work are Timelapse and MemoryLapse application (as discussed above). The ease of which a time-lapse film can be created enabled my filmmaking practice to be organic and intuitive as the process is condensed into a single convenient application.

The MemoryLapse application starts with taking an alignment image, that becomes translucent and is then used to align the next image, this innovative process means that the same spot can be returned to repetitively. Several films can be created and kept on the iPad and returned to, to be continued, with no time restrictions. The iPad incorporates all the elements of filmmaking into a single portable device, that offers infinite possibilities for creative and experimental filmmaking, that prior to the iPad would not have been possible without loss of quality through unsophisticated methods (as discussed in section 4.1) or sophisticated and expensive editing programs.

5.1.5   The Impact on Creative Practice of Recorded Drawing

It cannot be disputed that recorded drawing on a portable device is a new tool for the artist. I would argue that the ease to record the process of digital drawing and painting on a portable device is unprecedented. A substantial difference with digital drawing and painting is the undo feature, this has implications for creativity. Rather than working through mistakes to a copacetic conclusion, mistakes can be rectified immediately. This offers new options and can change outcomes.

The ability to revisit the creative process facilitates both reflective and experiential learning to take place. Therefore, recorded drawing and painting acts as a legitimiser of iPad art, as it shows precisely how the artwork was created. As a consequence, new codes of practice have developed along with iPad art. Digital integrity is important because it helps to enforce the legitimacy of original work (as discussed in case study: New Creative Mobile Practitioners).Through making digital art, I found that the technique of recorded drawing enabled a new way of working that allows a narrative to develop throughout the process.

An example being the piece *Settee* (March-April 2015) (figures 45,46). Recorded drawing creates a hybrid between drawing and animation that crosses conceptual boundaries held in place in the physical world. By this I mean drawing and animation are separated by physicality; animation pre-digital consists of drawing cel's being manipulated to appear as moving images, and digitally by using computer generated imagery. Recorded drawing is neither of these things, therefore it is a new tool for the artist.

SMEAR
318 views · 2 years ago

Text theory prose
51 views · 1 year ago

Figure 51. Screen shots: Top and Middle: YouTube (2016-17). Bottom: Facebook (2016).

5.1.6 The Ability to Distribute Work Very Quickly and Easily

My research has confirmed two significant developments in the use of the Internet in relation to the dissemination of artworks. These being: the easy accessibility to upload artworks directly to social networking platforms, along with the arrival of Wi-Fi with 3G/4G connectivity that enabled the freedom to roam with our devices whilst still being connected to the Internet. These factors facilitate the immediate global distribution of digital artworks enabling new ways of interacting, allowing direct feedback and creating new online relationships.

Nissenbaum (2015:3) (section1.5) discussion on issues of privacy argues that the use of social networking sites such as Facebook facilitates a more honest portrayal of ourselves online. Recent events (March 2018) regarding Facebook's privacy policies highlight the complexities with issues of information sharing practices. However, this research has focused on the use of Facebook primarily as a platform for sharing artworks, along with new codes of digital integrity (as discussed in section 2.1.2).

My research of the closed Facebook groups 'iPad Artists' and 'The Mobile Arts Collective' found that there is a crossover of membership with both groups. Artworks are frequently shared across different platforms, for example: artworks created with the sketchbook application can be uploaded to the application gallery; to iPad Artists; The Mobile Arts Collective and on the individual artist's homepage.

Working within the new realm of digital fine art research, my creative practice primarily does not exist as a physical object, therefore dissemination of the artworks is predominantly through online platforms, under the title: Angela Hayward # iPad in my Handbag, including: YouTube, Facebook Inc (see figure 51), Vimeo, Instagram, WordPress and Blogger.

 I have shown a selection of films offline in galleries including:

- Artist as digital archivist. Oslo, Norway (May 2018)
- The Point. Doncaster Film Festival (October 2017)
- A Space. Southampton Film Festival (May 2015)

Coming up

- Barcelona Arts Festival (29th June 2018) Cultural Walk, Church View
- Doncaster Arts Festival (23rd July 2018)

Figure 52. Top: Pen on Paper (2014). Bottom: SketchClub on iPad. (2017).

5.1.7 The Ability to Produce Genuinely Original Art Work Despite Accusations of Machine Replicability

Through my creative practice, I explored the new tools, techniques and processes offered by the iPad and its applications for drawing and painting. It has been contended that new media art is rarely original, and that new media artworks are never finished as individual artworks can be accessed at any time and be subject to unlimited changes and reinterpretations. Manovich (2001) asserts there is a component of automation in new media artworks, as the components of its making are pre-programed into the computer and the artist is simply following paths already created. However, I have argued this position does not consider the artist's decision-making, taking unique paths to create original artworks, or the conscious decision to decide when an artwork is completed.

Drawing and painting on the iPad has a different quality to drawing on paper or painting on canvas, the effects achieved are a simulation, remediating drawing or painting on paper or canvas. However, this remediation (Bolter and Grusin 2000) does not take away from the originality of the work. Mark-making through drawing and painting applications are as legitimate as mark-making on paper, or canvas. Whilst new media is now programmable and the potential for change is infinite and there is an element of automation, for example, through image manipulation applications, where the route consists of following automated pathways, it is not the case with drawing or painting on the iPad.

Figure 52 shows two examples of drawing; the first: pen on paper, the second uses the SketchClub application on the iPad. I chose these images as the are very similar in style and highlight the iPad as a tool for making original work. Whilst the pathways to media are already programmed into the system and are navigational, the artist decision making, and the actual mark-making certify that new media iPad art through drawing and painting applications are original. A legitimiser for this is the use of recorded drawing (as discussed in section 6.4).

In the physical world, drawing and painting are separated both by medium, the paint or pencil create their own unique marks. Gestures used for drawing in a sketchbook are different from gestures used for painting on a canvas, which is at arm's length standing on an easel. The sense of perspective also changes, when painting at an easel, I would stand several feet back from the canvas to gain a sense of perspective.

In the digital world, I found drawing and painting interchangeable. This is because both mediums use similar gestures for mark-making and whilst the end results can be aesthetically different, the process of mark-making is the same. Choosing digital media and equipment are the same as in the physical world, for example selecting a specific colour and a type of brush, but because the mark-making is contained within the space of the digitised screen, the underlying technical processes are very different.

Whilst I found strengths in the applications, including wide palates of colours and selections of different media, including, but not limited to, pencils, brushes and pens, I also found substantial differences. Virtual paint is a simulation of physical paint and whilst some of its qualities are remediated it does not act the same way, it has its own aesthetical qualities.

The iPad offers a new aesthetic when viewing screen works, the relationship to the content of the screen is both immediate and immersive. Backlighting adds a luminosity to the screen that creates both depth and a visual harmony to new media artworks. Colours can appear vibrant; light and shade have an incandescent quality.

The iPad's new tools enable originality to develop through negotiation and understanding of what these new tools can provide for the artist. I do not claim virtual drawing and painting on the iPad can replace the physical act of drawing and painting, or the physical artworks, rather that it can sit alongside, thereby allowing for a new and original practice to be formed for the artist.

Figure 53. Film still: Timelapse. 'iPad in my Handbag' (2014).

5.1.8 The Ability of the iPad Tools to Capture Liminality – and its Links to Feminist Concerns

I have found that like feminism, liminality cannot be defined by clear lines and boundaries. Judy Wajcman (1997), suggested that women's relationship with technology oscillates between optimism and pessimism. Whilst feminist concerns continue to be peripheral to the wider society, my research (case study: New Mobile Practitioners) has shown that women's relationship with technology has changed and the iPad represents a positive contribution to the lives of women artists.

Feminist discourses can themselves be seen as taking place in liminal space situated on the edges of society. Using filmmaking to explore personal discourses changed my relationship with how I perceive filmmaking and enabled me to develop previously unseen visualisations. Autoethnography and visual ethnographies were employed to capture personal insight into intimate, private, domestic and public spaces. These personal visual narratives enable critical reflection, of moments that I conceive to be culturally significant yet often fail to penetrate the conscious.

Consequently, an awareness of liminality impacted upon my creative practice. For example, in the films *Smear* (2014) and *iPad in my Handbag: Two Weeks of my Life Compressed* (March 2014), the viewer is left on the periphery of vision, only glimpses of what is happening are seen, giving the pieces an ambiguous feel. A further example of capturing (Bruno 2002:102) the 'in-between spaces of everyday life' is the film*: Driving. 1hr, 41 minutes, 32 seconds* (September 2017). Over a 3-year period, I captured my everyday car journeys, using the time-lapse application, the footage is both monotonous and rhythmic. Like Akerman (1975) (as discussed in section 1.2.3), through filmmaking capturing and documenting my surrounding space, my creative practice exploits the ordinariness of the everyday. The iPad became a diaristic device mapping my personal space, as it moved from the domestic to taking a position of nomadism, through capturing the spaces around me, enabled a way of thinking about my creative practice as a mapping of both the conceptual and physical spaces I inhabit and enabled new visualisations of my everyday.

Word count 31188

References, Bibliography,

Appendix A, B, C, D, E

6 References

Apple Inc. (2017). *Apple Inc.* [Online] Available at: https://developer.apple.com/app-store/review/guidelines/ [Accessed 6 May 2017].

Bergstrom, J. (2015). *British Film Institute*. [Online] Available at: www.bfi.org.uk/news-opinion/sight-sound-magazine/keeping-the-distance-chantel-akerman [Accessed 12 January 2017].

Bolter, J. & Grusin, R. (1999). *Remediation: Understanding New Media*. 2nd Edition ed. London: Graphic Composition Inc. pp.11,16,21,31,44.

Borg, W. (2009). *The Experience of Writing a Practice Based Thesis in Fine Art and Design*. [Online] Available at: http://etheses.whiterose.ac.uk/3745/1/ukblethos522924.pdf [Accessed 12 November 2016].

Bourriaud, N. (2002). *Postproduction, Culture as screenplay: How Art Reprograms the World*. [Online] Available at: http://www.sternberg-press.com [Accessed 14 December 2014]. pp. 3,4.

Briganti, B. & Mezei, K. (2013). *The Domestic Space Reader*. 1st Edition ed: Princeton University Press. pp. 325-7.

Bruno, G. (2002). *Atlas of Emotion: Journeys in Art, Architecture, and Film.* In: 1st Edition ed. New York: Verso, pp. 84,85,95,99,101,102.

Butler, A. (2016). *The True Heart of the Digital Art Movement*. [Online] Available at: http://m.huffpost.com/us/entry/11307110 [Accessed 4 August 2016].

Bochner, A & Ellis, C. (eds). (2002). *Ethnographically Speaking: Autoethnography, Literature, and Aesthetics*. New York: Altamira Press. pp. 37,45.

Clifford, J. (1986). *Introduction: Partial Truths*. In J. Clifford & G. Marcus (Eds*.), Writing Culture: The Poetics and Politics of Ethnography.* Berkeley, CA. University of California Press.

Cottingham, D. (1998). *Cubism.* 3rd Edition ed. London: Tate Gallery. pp. 24,25.

Douglas, M. (2013). *The Domestic Space Reader*. 1st Edition ed. New York: Princeton University Press. pp. 53,259,251.

Ellis, C., Adams, E. & Bochner, P. A. (2011). *Qualitative Research*. [Online] Available at: http://www.qualitative-research.net/index.php/fqs/article/view/1589/3095 [Accessed 14 November 2016].

Elwes, C. (2005). *Video Art-A Guided Tour*. 2nd Edition ed. London: I.B. Tauris. pp. 39.

Evens, C. (2014). *We are the Future Cunt*. [Online] Available at: https://motherboard.vice.com/en_us/article/we-are-the-future-cunt-cyberfeminism-in-the-90s [Accessed 21 March 2015].

Flaxton, T. (2011*). HD Aesthetics*. Convergence: the journal of research into new media technologies. Vol 7. University of Luton. pp. 117.

Greenberg, C. (1961). *Modernist Painting* [online] Available at: file:///C:/Users/Angela%20H/Downloads/greenberg_modernistPainting.pdf [Accessed 17 January 2018].

Gidal, P. (1976). *Theory and definition of structuralist/materialist film*. [Online] Available at: http://www.luxonline.org.uk/articles/theory_and_definition [Accessed 16 February 2017].

Goldin, N. (2012). *The Women's Art Library*. [Online] Available at: www.gold.ac.uk/make [Accessed 4 March 2014].

Haraway, D. (1991). *Cyborg Manifesto*. [Online] Available at: https://philpapers.org/rec/HARQCM [Accessed 3 February 2015]. pp. 209,302.

Hayward, A. (2015). Apped. Definition. [Online] Available at: http://www.urbandictionary.com/define.php?term=App%27ed [Accessed 16 November 2017].

Hershman Leeson, L. (2017). *Net Art Anthology*. [Online] Available at: https://anthology.rhizome.org/dollie-clones [Accessed 14 March 2017].

Hine, C. (2000). *Virtual Ethnography*. London: Sage Publishing. p 63,64.

Hjelde, C. (2012). *Considering a Reflective Site: Practice between Art and Pedagogy in the Art School*. [Online] Available at: http://ualresearchonline.arts.ac.uk/5890/1/KatrineHjeldePhD.pdf [Accessed 24 November 2016].

Jones, C. (2010). *The Function of the Studio (when the studio is a laptop?* [Online] Available at: faa218.files. WordPress [Accessed 9 February 2017].

Kay, A. & Goldberg, A. (1977). *Personal Dynamic Media.* [Online] Available at: http://homepages.dcc.ufmg.br/~loureiro/cm/docs/kay personal dynamic media.pdf [Accessed 14 December 2016]. pp. 31,38.

Kolb, D. (1984). *Experiential learning: experience as the source of learning and development.* [Online] Available at: http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf [Accessed 23 November 2016].

Le Grice, M. (1970). *Berlin Horse*. [Online] Available at: http://youtu.be/LDj8Tc6259o [Accessed 24 July 2014].

Le Shure, C. (2005). *What is Liminality?* [Online] Available at: http://www.liminality.org/about/whatisliminality.pdf [Accessed 19 January 2017].

Lean, T. (2016). *Electronic Dreams. How 1980s Britain Learned to Love the Computer.* London: Bloomsbury Sigma. pp. 67.

Lister, M. Dovey, J. Giddings, S. Grant. I Kelly, K. (2009). *New Media: A Critical Introduction.* Second Edition. [Online] Available at: file:///C:/Users/Angela%20H/Downloads/New_media%20important.pdf [Accessed 17 January 2018].

Lovejoy, M. (2004). *Digital Currents: Art in the Electronic Age*. 3rd Edition ed. New York: Routledge.pp.96,107,108,115,116,117.

Malins, J. & Grey, C. (1995). *Appropriate Research Methodologies for Artists, Designers & Craftsperson's: Research as a Learning Process*. [Online] Available at: carolegrey.net/Papers%20PDFs/cc.pdf [Accessed 11 January 2017].

Manovich, L. (2001). *The Language of New Media.* 1st Edition ed. New York: Bloomsbury Academic. pp. 11,15,19,222,255-7.

Manovich, L. (2013). *Software takes Command*. 1st Edition ed. New York: Bloomsbury Academic. pp. 4,37,38,57,58.

McLoughlin, A. (2016). *Technology is Speeding up our Perception of Time.* [Online] Available at: http://www.sciencealert.com/research-suggests-that-technology-is-speeding-up-our-perception-of-time [Accessed 14 January 2017].

Mulvey, L. (2009). *Visual and other Pleasures*. 2nd Edition ed. Basingstoke: Palgrave Macmillan. pp. 37.

Nissenbaum, H. (2010). *Privacy in Context: Technology, Policy and the Integrity of Social Life.* [Online] Available at: https://crypto.stanford.edu/portai/papers/privacy in context pdf [Accessed 16 November 2016]. pp. 3-6.

O'Reilly, K. (2009). *Key Concepts in Ethnography*. London. Sage publications.

Pink, S. (2009). *Doing Visual Ethnography*. Sage Publications. 2nd edition.

Reeves, E. (2013). *MOCA U - MOCAtv*. [Online] Available at: https://www.youtube.com/watch?v=2B6nMlajUqU [Accessed 14 January 2017].

Russell, C. (1999). *Experimental Ethnography: The Work of Film in the Age of Video*. Durham: Duke University Press.

Robinson, E. (2011). *Cutting up the Cut Ups.* 1st Edition ed. Cambridge: Cambridge University Press. pp. 6,43.

Sullivan, G. (2006). *Artefacts as Evidence within Changing Contexts*. [Online] Available at: http://sitem.herts.ac.uk/artdes research/papers/wpades/vol14/gsfull.hmt l [Accessed 14 November 2016].

The Statistics Portal. (2017). *The Statistics Portal*. [Online] Available at: https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/ [Accessed 6 May 2017].

Thomas, G. (2011). *How to do your Case Study*. 2nd Edition ed. London: Sage Publications.

Underberg, N. & Zorn, E. (2013). *Digital Ethnography: Anthropology, Narrative and New Media.* 1st Edition ed. Texas: University of Texas Press.

Wajcman, J. (2004). *Technofeminism*. Cambridge: Polity Press. pp. 98-99.

Webb-Ingall, E. (2015) *The Video Show – Video Art and Community Video* [Online] Available at: https://lux.org.uk/writing/the-video-show-by-ed-webb-ingall [Accessed 30 October 2018].

7 Bibliography

Abramovich, M. (2010). *Marina: live at MOMA* [Online]. Available at:
http://www.youtube.com/marinaabramovic [Accessed 18 July 2013].

Bell, D and Kennedy, B. (2002). *The Cybercultures Reader*. London: Routledge.

Bessell, S. (2014). *The Liminal Self: Evoking a critical dialogue around self-representation in contemporary art practice*, Master of Creative Arts (Research) thesis. Faculty of Creative Arts, University of Wollongong [Online] Available at:
http://ro.uow.edu.au/cgi/viewcontent.cgi?article=5398&context=theses [Accessed 21 January 2018].

Broude, N and Garrard, C. (eds). (2005). *Reclaiming feminist agency: feminist art after postmodernism*. California: University of California Press.

Baudrillard, J and Turner, C. (2002). *Screened out*. London: Verso.

Bunting, H. www.irational.org/ [Online]. [Accessed 22 November 2013].

Burroughs, W. (1959). *The Naked Lunch*. London. Olympia Press.

Carson, F. and Pajaczkowska, C. (ed) (2000). *Feminist Visual Culture*. Edinburgh: Edinburgh University Press.

Cartier-Bresson, H. (1972). *Man and machine*. London: Thames And Hudson.

Caughie, J; Brunsdon, C. (2000). *The feminist, the housewife, and the soap opera*. Oxford: Oxford University Press.

Clark, A. & Chambers, D. (1998). *The Extended Mind*. [Online] Available at:
https://philpapers.org/rec/CLATEM [Accessed 21 March 2014].

Caldwell, J. (2008). *Production Culture*. Durham: Duke University Press.

Candy, L. and Edmonds, E. (ed). (2002). *Explorations in Art and Technology*. Libri Publishing. [online]. Available at: www.libripublishing.co.uk [Accessed 13 March 2013].

Chambers, D. and Clark, A. (1998). *The Extended Mind*. [Online] Available at:
http://www.nyu.edu/gsas/dept/philo/courses/concepts/clark.html [Accessed 22 October 2012].

Chicago, J. (2012). *Legacy*. [Online]. Available at: http://www.judychicago.com/about/bio.php [Accessed 18 November 2012].

Christakis, N., Fowler, J. (2011) *Connected: the amazing power of social networks and how they shape our lives*. London: Harper Press.

Curtis, M. (2005). *Distraction: Being human in the digital age*. London: Futuretext.

Cutting Edge. (2000). *Digital desires - languages, identity and new technologies*. London: New York: I. B. Tauris.

Debord, G. (1967). *The Society of the Spectacle*. [Online] Available at:
http://www.antiworld.se/project/references/texts/The_Society%20_Of%20_The%20_Spectacle.pdf [Accessed 14 August 2013].

Denzin, N. K., & Lincoln, Y. S. (eds.). (1998). *The landscape of qualitative research: Theories and issues*. Thousand Oaks, CA: Sage.

Drushel, B. and German, K. (ed) (2011). *The Ethics of Emerging Media*. New York: Continuum.

Domosh, M., Seager, J. (2001). *Putting women in place - feminist geographers make sense of the world.* New York; London: Guilford Press.

Eisenstein, E. (2002). *Office Management: Developing Skills for Smooth Functioning*. In Briggs, A. and Burke, R. (ed) [Online]. Available at: http://books.google.co.uk/books?id=3aiA1URwOXIC&pg=PA24&lpg=PA24&dq=Eisenstein+in+Briggs+and+Burke,+2002 [Accessed 12 August 2013].

Evens. A. (2001). *This Virtual Life*. London: Fusion.

Genz, S. (2009). *Postfemininities in Popular Culture*. London and New York: Palgrave Macmillan.

Goldin, N. (2012). *The Women's Art Library*. [Online]. Available at: www.gold.ac.uk/make [Accessed 4 March 2013].

Fischer, H. (2013). *Digital Shock*. 1st Edition ed. London: McGill-Queens University Press. pp.17,103,105.

Friedberg, A. (2007). *The Virtual Window - From Alberti to Microsoft*. 1st Edition ed. New York: Routledge. pp.1,2,11-13.

Gamble, S. (2001). (ed). *Feminism and Post-feminism*. London: Routledge.

Gayford, M. (2011). *A bigger message: conversations with David Hockney*. London: Thames & Hudson.

Grosz, E. (1990). *Jacques Lacan, a feminist introduction*. London and New York: Routledge.

Haraway, D. (1991). *Simians, Cyborgs, and Women: The Reinvention of Nature*. London: Free Association Books.

Haraway, D. (2004). *The Haraway Reader*. London; New York: Routledge.

Hayles, K. (1999). *How we became posthuman - virtual bodies in cybernetics, literature, and infomatics*. Chicago: University of Chicago Press.

Hovenden, F. (ed). (2009). *The Gendered Cyborg, A Reader*. London and New York, Routledge.

Irigaray. L. (1993). *An Ethics of Sexual Difference*. (Trans) Burke, C. and Gillian C. New York: Ithaca: Cornell University Press.

Johnson, S. (1997). *Interface Culture - How New Technology Transforms the Way We Create and Communicate*. London: Harper Edge.

Johnson, S. (2008). *The Everyday*. London: The Whitechapel Gallery. Cambridge, Massachusetts: The MIT Press.

Kember, S. (2003). *Cyberfeminism and artificial life*. London: Routledge.

Krotoski, A. (2012). *Digital human*. [Online] Available at: www.bbc.co.uk/programme [Accessed 18 January 2013].

Lang, F. (1927). *Metropolis*. [Online]. Available at: http://www.youtube.com/watch?v=MBbvzrTSTWQ [Accessed 14 August 2013].

Lean, T. (2016). *Electronic Dreams: How 1980s Britain Learned to Love the Computer*. London: Bloomsbury Sigma.

Lee, W. L. (2010*). Contemporary feminist theory and activism: six global issues.* Peterborough, ON.: Broadview Press.

Lefebvre, H. (1974). *Production of Space.* (Trans 1991). [Online] Available from: http://cairo.thegreeneyl.com/sites/default/files/03_Lefebvre _Production-of-Space_0.pdf [accessed 23 July 2014].

Lévy, P. (1998). *Becoming Virtual*. New York: Plenum Publishing.

Leddy, N. (2006*). 'Aphrodite Project'* in Wilson, S. (2010). *Art and Science Now*. London: Thames and Hudson.

Malloy, J. (ed). (2003). *Women, Art and Technology*. Massachusetts: Leonardo.

Medina, M.A. (2014). *Tracey Emin: Life Made Art, Art Made from Life*. Spain: University of Málaga.

Misek, R. (15 October 2010). *Dead time: Cinema, Heidegger, and boredom* [Online] Available at: https://doi.org/10.1080/10304312.2010.505331 [Accessed 19 January 2018].

Moorby, N. (2004*). Her indoors: Women artists and depictions of the domestic interior.* [Online] Available at: www.tate.org.uk/research-publications/camden-town-group/nicola-moorby [Accessed 21 February 2013].

Mount, W. (2012) *Living Liminality: Of Thresholds and Dwelling Places* [Online] Available at: https://feminismandreligion.com/2012/08/19/living-liminality-of-thresholds-and-dwelling-places-by-marcia-w-mount-shoop/ [Accessed 21 January 2018].

Mulvey, L. (1989). *Visual and Other Pleasures*. London: Macmillan.

Oddey, A. (1997). *Modes of Spectating*. Bristol: Intellect Books.

Pallasmaa, J. (2005). *The Eyes of the Skin: Architecture and the Senses*. Chichester: John Wiley & Sons.

Pallasmaa, J. (2009). *The Thinking Hand: Existential and Embodied Wisdom in Architecture*. Hoboken, N.J: Wiley.

Pallasmaa. J. (2011). *The Embodied Image*. West Sussex: John Wiley & Sons.

Palfrey, J. (2008). *Born digital: understanding the first generation of digital natives*. New York, NY: Basic Books.

Pajaczkowska, C., Carson, F. (2000). *Feminist Visual Culture*. Edinburgh: Edinburgh University Press.

Paradoxa: International Feminist Art Journal (2011) [Online] Available at: http://wwwktpress.co.uk [Accessed 4 March 2013].

Ringley, J. (1996). *Jennicam*. [Online] Available at: http://www.bbc.co.uk/news/magazine-37681006 [Accessed 16 February 2017].

Schon, D. (1982). *The Reflective Practitioner*. 2nd Edition ed. New York: Basic Books Inc.

Silverstone, R. (1997). *Visions of Suburbia*. London: Routledge.

Subrosa. [Online] Available at: http://www.cyberfeminism.net [Accessed 28th October 2012].

Sullivan, G. (2005.) *Art Practice as Research: Inquiry in the Visual Arts*. Thousand Oaks, CA: Sage. Imprint.

Sutton, D., McKenzie, R and Brind, S. (2007). *The state of the real; aesthetics in the digital age.* London, New York: I.B. Tauris.

Tasker, Y., Negra, D. (2007*). Interrogating postfeminism: gender and the politics of popular culture.* Durham, N.C: Duke University Press.

Turkle, S., Clancey, WJ., Helmreich, S., Loukissas. YA., & Myers, N. (2009). *Simulation and Its Discontents.* London: MIT Press. Available at: ProQuest Ebook Central. [Accessed 10 March 2018].

Toews, P. (2010). *Technomagic and the Individual in Reactive Digital Arts* [Online] Available at: http://ucsc.academia.edu/Departments/Digital_Arts_and_New_Media/Documents [Accessed 11th October 2012].

Trochimchuk, S. (2007). *Wipond and Foucault: The Internet and the Panoptic Gaze.* [Online] Available at: http://philosophy.lakeheadu.ca/?display=page&pageid=23 [Accessed 16 August 2013].

Wands, B. (2006). *Art of the digital age.* London: Thames & Hudson.

Willemsen, Marlous; Halasa, Malu; Plas, Els van der. (2002). *Creating spaces of freedom - culture in defiance.* London: Saqi Books.

Wolmark, J. (ed). (1999). *Cybersexualities: A Reader on Feminist Theory, Cyborgs and Cyberspace.* Edinburgh: Edinburgh University Press.

Wajcman, J. (2009). *Feminist theories of technology*. Cambs, J. of Econ. Vol. 3 [Online] Available at: www.oxfordjournals.org/search [accessed 27 November 2012].

Wilson, S. (2010). (ed). *Art and Science Now*. London: Thames and Hudson.

8 Appendix

8.1 Appendix A

8.1.1 Mapping the iPad

The premise of all iPad's is the same; the interface is the point of interaction with the software. The iPad uses a menu icon driven interface from which the user selects command choices. Interactions with the screen are made through the gestures of tapping, pinching the screen or sliding finger/s across the screen. The only physical button on the screen is the "wake/sleep" button to turn the iPad on. When turned on the home screen appears, to open an application, it is tapped and when opened dominates the screen, except for the settings page.

Once opened, applications continue to run under the interface in a state of suspension, to be accessed at the same point or closed by double clicking on "wake/sleep" button and sliding the interface up, which shows all opened applications that can then be closed with an upwards flicking gesture. Tap on the settings icon to access its page, this is where adjustments can be made to; privacy, notifications, Siri, sounds and brightness. Multi-gestures can be turned on or off here.

The settings page is split into two sections, one section showing built-in software and the other section showing the chosen page. Lock rotation can be set, as can time, date, restrictions, keyboard and Wi-Fi syncing. The usage icon is also found here which shows information such as accessible storage space and usage. Accessibility options can also be accessed from here, including changing font sizes and the capability to change sensitivity areas of the screen for users with disabilities. Assisted technologies now come with their own applications, examples being: cameras and satellite navigation systems.

8.1.2 Mapping the Software – Applications and the App Store

Apple's App Store is accessed via the app icon, which is a built-in app. The App Store has a central search engine and places applications in three classifications that dominate the store, these are free, purchased and top charts. There are 24 categories of applications, to name a few: travel, productivity, photo and video and entertainment. Within each category, there are several more relating to the subject matter.

Applications are collated by their content. Each application displays a brief description and technical information, for example, the applications version history, the developer website, it's privacy policy and its iOS compatibility. There is a rating system, where users can rate and comment on the application. Once applications are downloaded, they can be moved to folders and named accordingly, then moved to a page or the main menu bar.

The App Store is accessible by account only, with a password activated for downloads. Purchased applications are stored on a personal database accessed via the App Store. Applications deleted from the iPad remain on the database and can be downloaded repetitively.

The iPad's in-built applications include built-in data bases for application content which includes contacts. All contacts across all platforms can be saved together, these include: contacts from social networking sites, including emails and telephone numbers accessed through other applications. An example of this is the FaceTime application. FaceTime is a video calling application, that allows users to see each other in real time for the duration of the call. Contacts, either phone numbers or email addresses, can be used with the FaceTime application.

There is a game centre that brings together gaming information and a virtual news stand and library 'iBook's' where e-books and documents can be stored. There is a calendar, which acts as a diary and a clock that includes global times and can be used as timer, stopwatch or as an alarm. There is a news application, with 24-hour news updates from chosen sites and newspapers, for example, BBC and The Guardian.

The notes application acts as a notebook and can save attachments including web links, photographs and videos. Several email accounts can be set up from the settings page. Music can be downloaded from the App Store and played directly through the device or streamed via Bluetooth to other devices such as external speakers. Videos can be played either directly through the device or through an application, such as YouTube.

Photographs are accessed either directly through the built-in application or via other applications, for example, Photoshop Express. Photographs can either be held on the device or uploaded to iCloud. iCloud is Apple's virtual storage space, accessed through the iPad's built-in application, some virtual space is provided free of charge, additional space can be purchased from the App Store.

The iPad uses photostream via Wi-Fi, to send both images and videos across iOS devices. Settings for photo sharing can be adjusted, so that images can be directly uploaded to specific websites, for example, Instagram. On the iPad, photographs are split into three sections: photos, shared and albums. Photographs are tagged with time, place and date, which is linked to the map and can be pinned directly onto the map. This can be adjusted in settings.

Photographic and video albums are either directly linked to an application or can be created and named, as well as automatically going into in-built folders, these include; people, places, memories, and most recently added. Photographs and videos can be edited, saved and deleted with the built-in applications and via downloaded applications. The in-built camera has autofocus, tap to focus, face detection and a FaceTime camera.

8.1.3 The Aesthetics of Applications

All applications must follow very specific rules and conventions set out by Apple for their appearance and functionality. They must integrate the following themes:

- Deference: a user interface must aid understanding of its use but not overpower it.
- Clarity: text must be legible always.
- Depth: visual layers and realistic motion to help the user's understanding.

There are three categories of control and access to content, these are:

- Bars: these contain contextual information and navigation tools to initiate actions.
- Content views: containing site-specific content and can enable gestures such as insertions, deletions and scrolling.
- Controls: actions can be performed here, and information displayed.

  (Apple. Inc, 2017).

Within an application temporary views may appear briefly, giving users important information or more choices to aid its functionality, these include gesture recognition, drawing, accessibility and printing support. iOS applications function through opening a series of screens. Each screen has its own functions, either to communicate information or a mode within the application.

There are three styles of navigation, these are:

- Hierarchical
- Flat
- Content-driven

  (Apple. Inc, 2017).

In a hierarchical application, users follow a series of screens until they reach their destination. To move to another destination, they must either step backwards or start again. Mail is an example of a hierarchical application. With a flat application, users can move between primary categories, which are accessed from the main screen, through a tab bar that allows users to navigate between categories.

The App Store is an example of a flat application. With a content-driven application its main function is to deliver information such as documents, videos, and images through straightforward navigation tools. Application builders are expected to use pure, clean colours to provide visual continuity. All applications must follow specific rules for size, and images should relate to the application's category, for example, a photography application might have an image of a camera, a painting application; a paint brush. Applications should be easy to read; their descriptions should be precise and accurate.

iOS uses metaphors for objects and actions in the physical world. Tapping on the icon, sets off an operation involving the manipulation of a metaphorical object using an action. There are two types of action in this context, these are: explicit and implied actions. Explicit actions are the direct result of applying an action to an object. An implicit action involves recognition of the object, the performance of the action and the consequences of the action. Most applications support both explicit and implicit actions, often for the same task. Recent additions to the iPad's tools/add-ons include the Apple pen, which enables the user to draw very fine lines, and a digital paintbrush.

The use of direct manipulation helps users feel they are in control of the device, examples being gestures made on the iPad such as pinching and swiping. Another example of direct manipulation can be seen with the use of a drawing application; the on-screen object should be visible while the action is performed, the user should be able to see the results immediately, as with a drawing.

User-control puts the user, not the computer in charge of the actions. They should incorporate safety nets for users, such as 'undo', which gives users confidence to explore the applications capabilities without fear of losing work. Aesthetically an application's design should be consistent with its contents and the tasks that it presents. It should clearly state through a visual language its purpose and identity and be appropriate for that purpose.

8.2 Appendix B

8.2.1 Main Applications used in Creative Practice Research

Ambient Design Ltd. 2010. *ArtRage*. Version 2.1.11. Digital drawing and painting contains a large selection of tools and paints. Paints can be used in a range of ways from impasto to translucent. Online gallery accessible with application purchase.

Savage interactive Pty Ltd. 2010. *Procreate*. Version 3.2.3. Digital painting features custom brushes, colour drop, layering and recording of work in progress. Online gallery accessible with application purchase.

Jim Scott. 2010. *SketchClub.* Version 2.5.1. Digital drawing and painting features custom tools, canvas and paints. Enables recording of work in progress, live streaming and access to online gallery offering instantaneous feedback from other users.

Maketomi.com. 2010. *Painterly*. Version 2.1.1. Enables cutting, pasting and layering of photographic images. No longer available on the App Store.

Giles Dezeustre. 2011. *Glaze.* Version 1.9. Photographic filters that remediate painting.

iColorama

Katerina Aleksieienka. 2011. *iColorama*. Version 4.24. Photographic filters. Online gallery accessible with application purchase.

Timelapse

Cateater, LLC. 2012. *Timelapse*. Version 6.0. Filmmaking application, its features include controls for frames per second and timer.

MemoryLapse

Clyde Pashley. 2012. *MemoryLapse*. Version 2.0.0. Filmmaking and photography. Films are created by initially taking an alignment photograph, which turns translucent and can be used repetitively to align the next photograph. The application then creates a film out the photographs.

iMovie

Apple Distribution International. 2010. *iMovie*. Version 2.3.3. Film editing, its features include changing film speeds, adding filters and sound.

InfiniFX

Voxeloid Kft. 2011. *InfiniFX*. Version 1.4. Photograph and film/video filters, includes 23 base effects with adjustable parameters.

Liquid Lens

Burgercone. 2014. *Liquid Lens*. Version 3.3. Filmmaking application with filters.

PS Express

Adobe Systems Inc. 2010. *Photoshop Express*. Version 5.4.1. Photographic editing includes options to change hue, tone, colour and saturation. It also offers cropping and blemish removal tools, text can be added. Another feature is the option to make a collage from photographs.

PicPlayPost

Mixcord Inc. 2011. *PicPlayPost*. Version 6.24. Film/video editor and collage maker. Enables up to nine films to be played on the same screen.

Animator Free

JBrown. 2013. *Animator Free*. Version 2.0.1. Creates animations through digital flipbooks.

Facebook

Facebook Inc. 2010. *Facebook*. Version 147.0. Social networking enables dissemination of artworks and films.

Cut & Paste

Milojkovic Marija. 2016. *Cut & Paste*. Version 1.0. Photographic background eraser.

360

Occipital, Inc. 2012. *360*. Version 4.4.3. Creates 360 panoramic photographs. Online gallery accessible with application purchase.

Fused

Easy Tiger Apps, LLC. 2015. *Fused*. Version 1.3. Combines and layers videos and photographs.

YouTube

Google, Inc. 2010. *YouTube*. Version 12.42. Dissemination of films/videos.

8.3 Appendix C

8.3.1 Applications

Application	Developer	Description	Version	Last update	Competence	Release date
iMovie	Apple Distribution International	Film editor	2.2.3	28/07/16	Very good	2010
Photoshop Express	Adobe Systems Inc.	Photographic editor	5.4.1	29/05/17	Very good	2010
Time lapse camera pro	CATEATER, LLC	Time-lapse camera	6.0	06/05/17	Very good, some glitches, films can't always be sent to own camera roll	2012
360 Panorama	Occipital Inc.	Creates 360 degree panoramic photographs	4.4.3	16/09/15	Very good, Some glitches, causing application to crash	2011
SketchClub	Jim Scott	Records drawing/painting/ sharing artworks through online gallery	2.5.1	07/01/17	Very good	2010
Snapseed	Google, Inc.	Photographic editor, filters and layering	2.17	21/03/17	Good	2011
ArtRage	Ambient Design Ltd.	Painting. Records work in progress	2.1.11	02/05/17	Very good	2010
Phototropic	Larry Weinberg	Photographic filters	3.3.1	15/05/15	Good	2012
Augmented Reality studio	ModiFace	Augmented reality builder	1.1	No longer available	Poor. Continually crashed	2012
Auroris	Joachim Graesser	Drawing with flowing pixels	1.3	03/11/11	Good.	2010
ChipPhoto	Cheng Lung chang	Cut and rearrange photographs	4.424	19/01/17	Good	2010
iColorama	Katerina Aleksieienka	Photographic filters	4.24	15/05/17	Good	2011
Inspire Pro	SnowCanoe	Drawing/painting	3.4	21/02/17	Medium	2012

Photoblend	JS8 Media Inc.	Photographic layering and blending	1.2	No longer available	Medium	2012
Auryn Ink	Auryn, Inc	Watercolour/inks	2.0.17	18/07/16	Good	2013
Oil painting effect	Jin Jeon	Photographic filters	7.0	13/1011	Poor	2012
Photoshop touch	Adobe	Cut and paste photographs	1.7.7	No longer available	Good	2014
Panorama 360 Camera	Haiqun Dang	Panoramic photographs	5.7	05/05/17	Poor. Application crashes	2012
8mm for iPad	Nexvio Inc.	8mm camera	2.5.1	14/05/17	Good	2013
Glaze	Giles Dezeustre	Photographic filters, remediating painting	1.9	31/10/14	Good	2011
Draw	Axiem Systems	Drawing and filters	2.2	22/02/14	Medium	2012
PicPlayPost	Mixcord Inc.	Video collages	6.24	15/04/17	Very good	2011
Video in Video	Mixcord Inc	Video collages	1.6	07/08/13	Poor. Application crashes	2011
360 Video	SX2 The World	360 Video maker	2.5	25/03/13	Poor. Application crashes	2014
YouTube	Google, Inc.	Dissemination of videos	12.23	17/06/17	Very good	2010
100FX	Sung Lab	Camera and filters	2.93	12/01/17	Medium	2012
VideoFX	Frontier Design Group, LLC	Video filters	6.3.0	08/06/17	Medium	2012
Brushstroke	Code Organa	Photographic filters	2.4	18/09/17	Medium	2014
Toon camera	Code Organa, LLC	Video filters	4.0	22/08/16	Good	2013
Liquid lens	Burgercone	Video filters	3.3	No longer available	Good	2014
Animator	Jonathan Brown	Creates digital flipbook	2.0.1	02/02/13	Good	2013

Fish eye camera	Galia Aviram	Photographic filters	1.0	05/04/13	Poor	2012
MemoryLapse	Clyde Pashley	Timelapse, can change speeds	2.0.0	09/02/14	Very good	2012
Videstitch	Fresh Squeezed Apps	Video collage	4.1	03/04/17	Medium. Application crashes	2014
Vimeo	Vimeo	Film dissemination	6.4	01/06/17	Very good	2011
Stop motion studio	Cateater	Stop start animation	8.3.1	31/04/17	Good	2012
Draw on video	i-app creation co. Ltd	Drawing on video	1.0.1	15/01/14	Poor	2014
Echograph	Vimeo	Moving photographs	1.52	No longer available	Poor. Application crashes	2014
Animoto	Animoto, Inc	Video slideshow maker	9.0.1	19/04/17	Good	2014
Procreate	Savage interactive Pty Ltd.	Painting	3.2.3	09/06/17	Very good	2010
Montage	Picshift photo manager	Video editor	1.5	16/05/16	Good	2014
Artisto	My.com BV	Video and photo editor	1.17	06/03/16	Good	2015
DrawingCam	Laksmi-Do Corp	Photographic filters	2.0	30/08/16	Medium	2014

8.4 Appendix D

8.4.1 Application Testing Results

Did the Application do the Task as Claimed?

Some applications did not perform as well as expected, this could be for several reasons including but not limited to: software malfunctions causing the application to crash or glitch, the speed of application, features not working as described, for example, I found the 'paintbrush' application to be slow and unresponsive. A time-lapse app with a set timer, drawing applications that were slow and clumsy.

Could the Application be Used Independently of its Developers?

Some applications are hampered by advertising, meaning the final artwork can have the developers name on it, with some applications a payment can made to remove advertising, however this is not the case with all applications, for example 'Animato' do not allow work to be saved to the iPad, instead it is kept on the developer's database and can only be accessed and saved for a price.

How Much Memory Does the Application Use and Does It Need Wi-Fi to be Accessed?

Some applications use large amounts of virtual space, for example, the iMovie application and the 360 application each use over a gigabyte of space. Other applications such as Auroia can only be used when connected to Wi-Fi. Both these factors were considered.

Was the Application Complicated or Intuitive to Use?

Whilst most applications are intuitive and easy to use, others are difficult to navigate. Other considerations include applications that change significantly with updates, which are not always better than the original, an example of this being the 'Photoshop Express' application. This application has been through serval updates and has moved from being a straightforward photographic editing application to being complex and over complicated.

8.5   Appendix E

8.5.1   Films

Applications	Film	Time	Upload date
Timelapse InfiniFX	*Kitchen*	21 scs	01/02/13
Timelapse	*Kitchen x 3*	21,21,58 scs	24/02/13
360. Flipbook iMovie	*Flipbook*	12 scs	14/07/13
Timelapse InfiniFX	*Domestic*	2 mins 24 scs	14/07/13
Timelapse InfiniFX	*Domestic*	56 scs	14/07/13
Timelapse InfiniFX	*Domestic*	20 scs	14/07/13
Timelapse	*Wash day*	1 min 40 scs	14/07/13
Timelapse InfiniFX	*Experimental*	23 scs	14/07/13
Timelapse	*Domestic*	13 scs	16/07/13
Timelapse PicPlayPost InfiniFX	*Experimental*	30 scs	16/07/13
Timelapse PicPlayPost InfiniFX	*Reflection x 2*	30 scs	19/07/13
Timelapse PicPlayPost InfiniFX	*Nothing ever Happens*	30 scs	20/07/13
Timelapse	*Experimental*	1 min 17 scs	21/07/13
Timelapse InfiniFX	*Experimental x 2*	20 scs	21/07/13
Timelapse InfiniFX	*Experimental*	2 mins 2 scs	21/07/13
Timelapse InfiniFX Video in Video	*Experimental*	1 min 6 scs	21/07/13
Timelapse	*Kitchen*	1 min 5 scs	21/07/13
Timelapse	*Goaty Beach*	20 scs	31/07/13
Timelapse	*Experimental*	2 mins 20 scs	31/07/13
iPad video camera	*360 movement*	38 scs	31/07/13
Timelapse InfiniFX	*Domestic x 6*	28,57,58,28,51,54 scs	31/07/13
SketchClub	*Recorded drawing*	4 mins 22 scs	04/02/14
SketchClub	*Recorded drawing*	45 scs	10/02/14
SketchClub	*Recorded drawing*	7 mins 35 scs	15/02/14
SketchClub	*Recorded drawing*	11 mins 26 scs	18/02/14
SketchClub	*Recorded drawing*	5 mins 36 scs	22/02/14
Timelapse	*Driving*	2 mins 42 scs	23/02/14

Timelapse	*Daybreak*	2 mins 40 scs	28/02/14
Timelapse	*Domestic*	21 mins 6 scs	28/02/14
Timelapse	*Night driving x 3*	29,32,45 scs	28/02/14
SketchClub	*Recorded drawing. Settee*	1 min 24 scs	28/02/14
SketchClub	*Recorded drawing. Settee*	5 mins 42 scs	28/02/14
SketchClub	*Recorded drawing. Settee*	58 scs	28/02/14
Timelapse	*iPad in my Handbag x 3*	51, 54, 58 scs	02/03/14
Timelapse	*iPad in my Handbag x 2*	1 min 32 scs. 2 mins 54 scs	04/03/14
Timelapse	*iPad in my Handbag x 3*	2 mins 36 scs. 3 mins 25 scs. 2 mins 24 scs	06/03/14
Timelapse	*iPad in my Handbag*	2 mins 54 scs	08/03/14
Timelapse	*iPad in my Handbag x 3*	56, 49,1 min 32 scs	08/03/14
Timelapse iMovie	*iPad in my Handbag. Two weeks compressed into 3 minutes 45 scs*	3 mins 45 scs	15/03/14
Timelapse	*Brighton daytrip*	28 scs	15/03/14
Timelapse InfiniFX	*Brighton daytrip*	28 scs	15/03/14
SketchClub	*Recorded drawing*	1 min 54	03/04/14
SketchClub Snap different PicPlayPost iMovie	*Recorded drawing*	11 scs	01/05/14
Timelapse	*Kitchen*	4 mins 8 scs	08/05/14
SketchClub	*Recorded drawing*	2 mins 43 scs	08/05/14
SketchClub	*Recorded drawing*	14 mins 34 scs	09/05/14
Liquid lens	*Supermarket*	6 mins 45 scs	09/05/14
Timelapse	*Night out*	45 scs	17/05/14
SketchClub MemoryLapse PicPlayPost iMovie	*Scene of a domestic nature*	30 scs	19/05/14
Timelapse InfiniFX PicPlayPost	*Walk x 3*	30 scs x 3	19/05/14
Liquid lens	*Bournemouth*	1 min 7 scs	20/05/14
Liquid lens	*Bournemouth*	48 scs	20/05/14
Luminancer	*Bournemouth*	20 scs	20/05/14
Timelapse	*Walk*	15 scs	20/05/14

Timelapse	*Driving up north*	37 scs	28/05/14
Timelapse InfiniFX PicPlayPost	*Experimental x 3*	21 scs	01/07/14
MemoryLapse	*Garden*	10 scs	15/10/13 -14/07/14
MemoryLapse	*Final Settee*	10 scs	02/07/14
Timelapse	*Coach journey*	11 scs	07/07/14
Timelapse	*Walk*	38 scs	07/07/14
Timelapse	*Alter Ego Full length*	1 hour 19 mins	11/08/14
Timelapse	*Clouds x 3*	12,17,38 scs	11/08/14
Timelapse	*Walking x 3*	10,11,16 scs	11/08/14
Timelapse	*Getting Farage*	16 scs	11/08/14
SketchClub	*Recorded drawing. London Road*	2 mins 37 scs	11/08/14
Timelapse	*Kitchen*	3 mins 10 scs	11/08/14
Timelapse iMovie	*Alter Ego edited*	5 mins	13/11/14
Plotagon	*Prose*	1 min 47 scs	17/11/14
Timelapse Fused iMovie	*Experimental x 7*	16,16,16,50 scs. 2 mins 26 scs x 3	17/11/14
SketchClub	*Recorded drawing. Self-portrait*	11 mins 18 scs	21/01/15
SketchClub	*Recorded drawing. Self-portrait*	4 mins 21 scs	21/01/15
Timelapse Fused iMovie	*Disrupting the Narrative 1*	7 mins 43 scs	05/07/15
Timelapse Fused iMovie	*Disrupting the Narrative 2*	2 mins 26 scs	05/07/15
Timelapse Fused iMovie	*Disrupting the Narrative 3*	4 mins 41 scs	05/07/15
Timelapse Fused iMovie	*Disrupting the Narrative 4*	28 scs	05/07/15
Timelapse Fused iMovie	*Disrupting the Narrative 5*	3 mins 22 scs	05/07/15
Timelapse Fused	*Cutting up the Cut-ups*	16 scs	16/07/15
Timelapse iMovie	*iPad in my Handbag*	7 mins 53 scs	17/07/15
Timelapse Fused iMovie	*Technofeminist*	1 min 36 scs	18/07/15
Timelapse Fused iMovie	*Don't blink*	44 scs	18/07/15
Timelapse Fused iMovie	*Fractals*	6 mins 35 scs	18/07/15

Timelapse iMovie	*London underground*	45 scs	26/08/15
Timelapse	*Smear*	2 mins 6 scs	28/08/15
Timelapse	*Skin I'm in*	41 scs	28/08/15
Timelapse Fused iMovie	*Glitching narratives*	7 mins 32 scs	30/08/15
Timelapse Fused iMovie	*Glitching narratives and other misdemeanours*	10 mins 53 scs	30/08/15
Timelapse iMovie	*iPad in my Handbag*	6 mins 18 scs	01/09/15
Timelapse Fused iMovie	*Disrupting the narrative II*	4 mins 40 scs	02/09/15
Timelapse Fused iMovie	*Technofeminist II*	57 scs	16/09/15
Luminancer x 4	*Experimental*	1 min x 4	08/12/16
Natural reader iMovie	*Prose x 3*	1 min 24 scs.1 min 54 scs. 2 mins 30 scs	12/12/16
Timelapse iMovie	*Driving x 52*	1 hour 43 mins	Not uploaded. 2014-17

Portfolio

9 Portfolio

Introduction

The following portfolio presents a selection of artworks from this research that has explored feminist discourses. At the beginning of the portfolio is the piece '*Prose: Flow Theory Association'* (2014) (as discussed in section 1.4.1). Whilst aesthetic comparisons between artworks may not always be obvious, they are linked by recurring formal concerns and subject matter and have been achieved through exploring different creative technological processes and techniques. The experimental approach to filmmaking and photography that I have taken produced new visualisations of intimate, personal, domestic and public spaces. The painting and drawing artworks I have chosen to present, show my embedded specialist knowledge as a fine artist, and, are shown through the aesthetics of composition, colour, texture, form, layer and tone.

The portfolio is split into three parts, directly linked to the Creative Practice Review: The portfolio is presented under the following headings:

iPad: Film Studio

Figures 54-72. A selection of film stills.

iPad: Photography, Editing and Printmaking Studio

Figures 73-85. A selection of photographs, collages and prints.

iPad: Sketchbook

Figures 86-101. A selection of painting and drawings.

Prose. Flow Theory Association.

iPad. Technological mind extension.
Through the thinking hand, Gestures touching,
Apps. Apped. Apping. Mapping.

Our transient avatared social existence.

Media, medium, technology entwined. Technomagic
Tardis technology. Bigger on the inside
Window to   the World
Database. No beginning, middle   End

Crossing conceptual boundaries held in place in the physical
world. Luminance,   backlighting aids the ethereal
Distraction technology.
Changing both time and. Cognition

Normalized through atomization
and frag m ent ation.
enhancing our sense of
Creativity. Arises from

Anonymous. chaos   dislocation.

Part of the everyday.
Wi Fi.
Paradoxically, facilitating distraction of the here and now
Globally connected but alone.
Peripheral vision
Navigating both virtual and physical space.

Interacting, flowing. Passing through.
Geographic borders.
Disrupting political institutions. Surveillance, norming,
storming, all seeing.

Tech no techno Feminist

The World is my studio

Carried around in my Handbag.

Recorded. Uploaded. Saved to the Cloud of infinity.

Silent disco of

Global virtual strangers.
uniting through Zeitgeist
Of third space

The third space
A social product.
Created by society under oppression
Or marginalization.

Space:
Mappable
Conceptual
Social.
Hacking
Decoding,
Coding,

Abstractive tendencies

Retrieve the space of inequality.
god is gone.
The self   frag m ent ed. Dry pixels, flowing. Edited paths
Taken

We are Media.

The book is
Secondary to
Addiction of images.

Regardless of production.
The pictorial image exists.

Navigation to and from

Virtual places in

Virtual spaces.

After transience

A Metamorphosis

iPad: Film Studio

Figure 54. Film still: Timelapse. 'iPad in my Handbag' (2014).

Figure 55. Film still: Timelapse. 'iPad in my Kitchen' (2013-14).

Figure 56. Film still: Timelapse.' iPad in my Kitchen' (2013-14).

Figure 57. Film still: MemoryLapse. 'Settee, Dale Road' (October 2013-July 2014).

Figure 58. Film still: Timelapse. 'iPad in my Handbag, 2 Weeks Compressed' (March 2014).
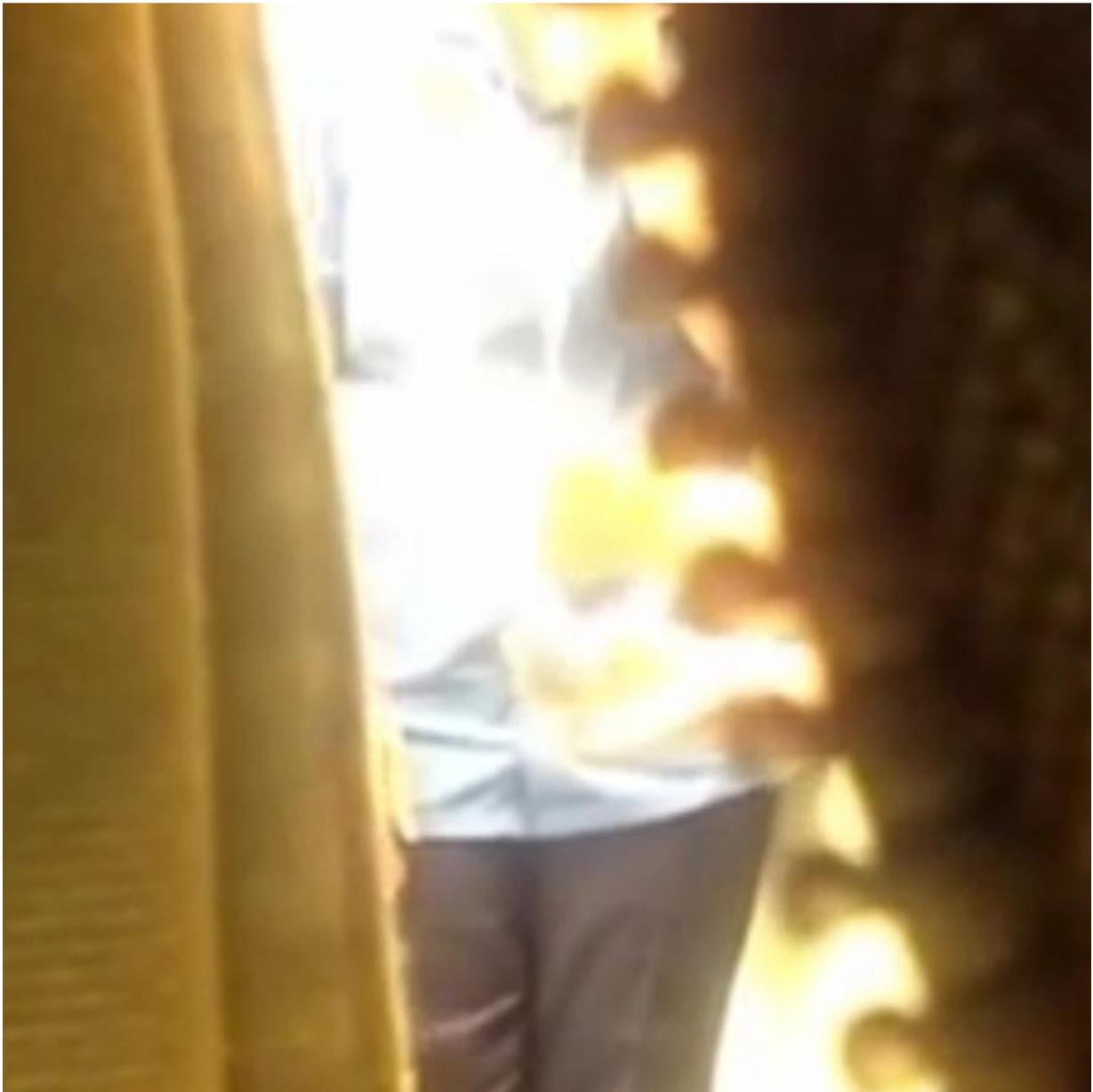
Figure 59. Film still: Timelapse. 'iPad in my Handbag, 2 Weeks Compressed' (March 2014).

Figure 60. Film still: Timelapse. 'Smear' (28 August 2014).

Figure 61. Film still: Timelapse. 'Smear' (28 August 2014).

Figure 62. Film still: Timelapse. 'Walking' (2014-15).

Figure 63. Film still: Timelapse. 'Walking (2014-15).

+

Figure 64. Film still: Timelapse. 'Driving' (2015-17).

Figure 65. Film still: Timelapse. 'Driving' (2015-17).

Figure 66. Film still: MemoryLapse. 'New Space, Lobelia Road' (2016).

Figure 67. Film still: Timelapse. 'Vietnam' (2016).

Figure 68. Film still: Timelapse. MemoryLapse. Fused 'Disrupting the Narrative' (2015).

Figure 69. Film still: Timelapse. MemoryLapse. Fused. 'Glitching the Narrative' (2015).

Figure 70. Film still: Timelapse. MemoryLapse. Fused. 'Glitching the Narrative' (2015).

Figure 71. Film still: Timelapse. MemoryLapse. Fused. 'Cutting up the Cut-ups' (2015).
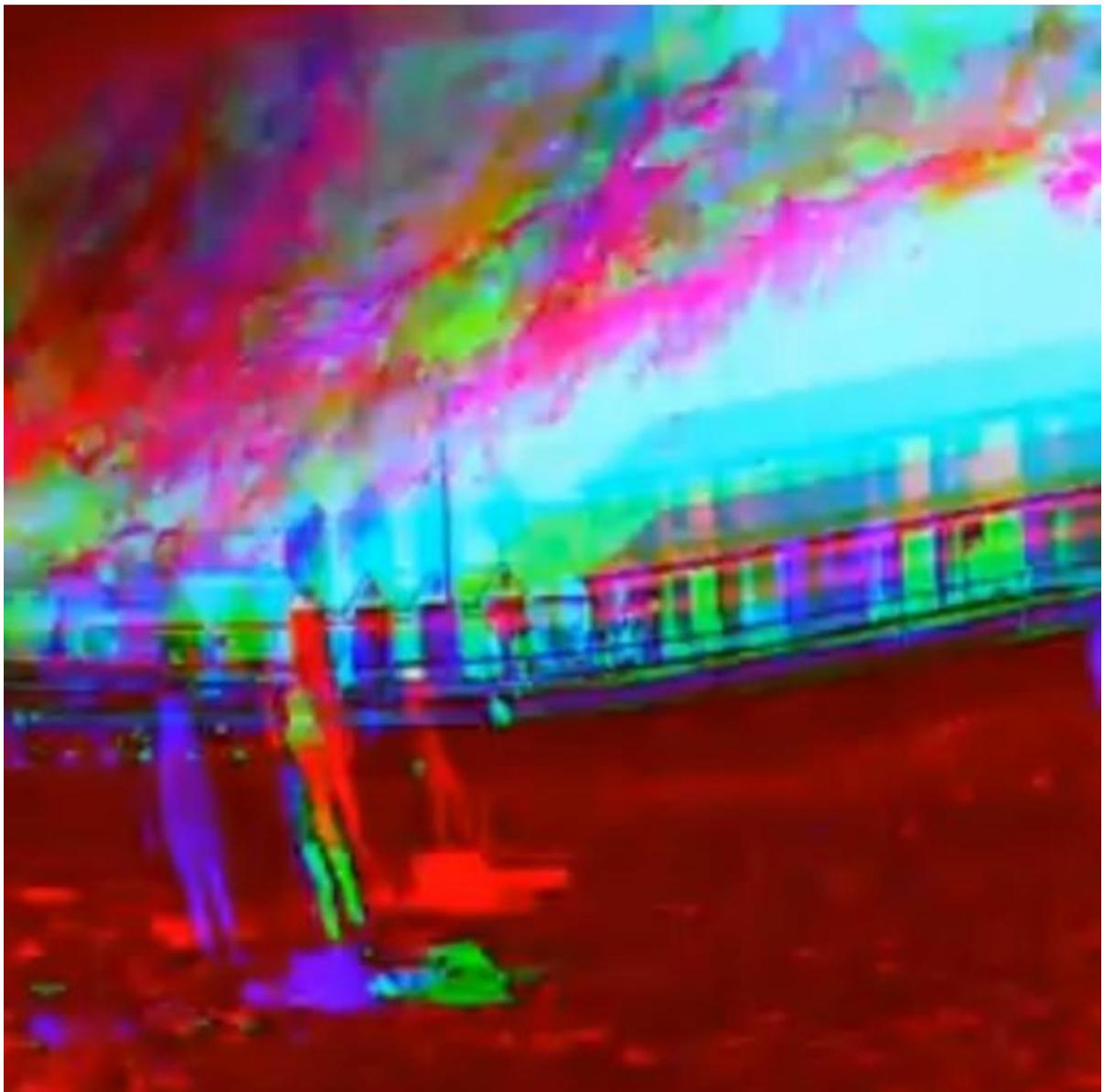
Figure 72. Film still: Liquid Lens. 'Bournemouth' (2015).

iPad: Photography, Editing, Printmaking Studio

Figure 73. Photograph. 360. (2015).

Figure 74. Photograph. 360. (2014).

Figure 75. Photograph. 360. (2015).

Figure 76. Photograph. Glaze. (2015).

Figure 77. Photograph. Glaze. (2015).

Figure 78. Photograph. Glaze. (2015).

Figure 79. Photograph. iColorama. (2015).

Figure 80. Example of photograph painted with acrylics. (2013).

Figure 81. Experiments with Printmaking. (2013).

Figure 82. Experiments with Printmaking. (2013).

Figure 83. Photograph. Glaze. iColorama. 'Away to Asia II' (2016).
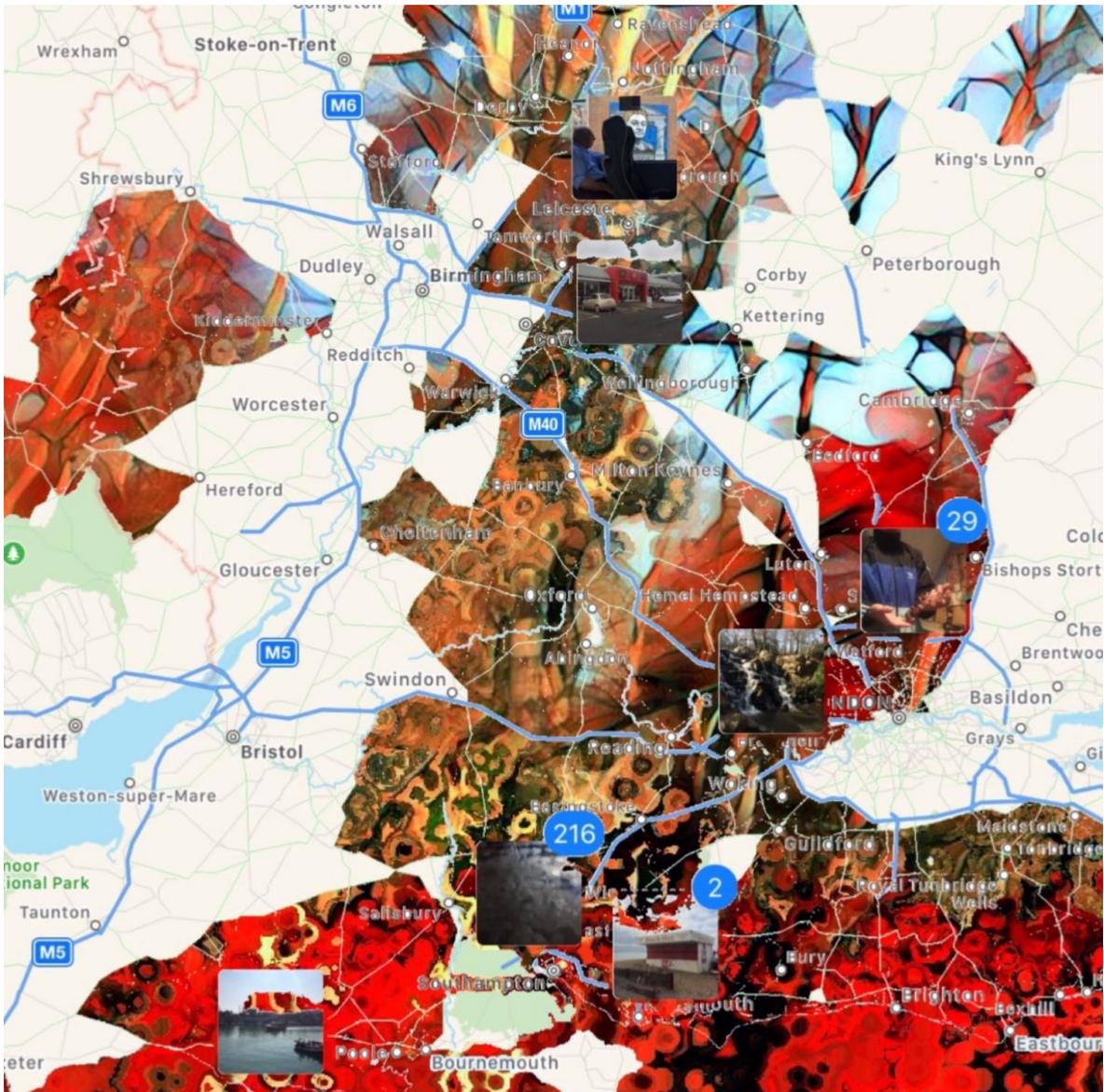
Figure 84. Photograph. Cut & Paste. 'There and Back Again III' (2016).
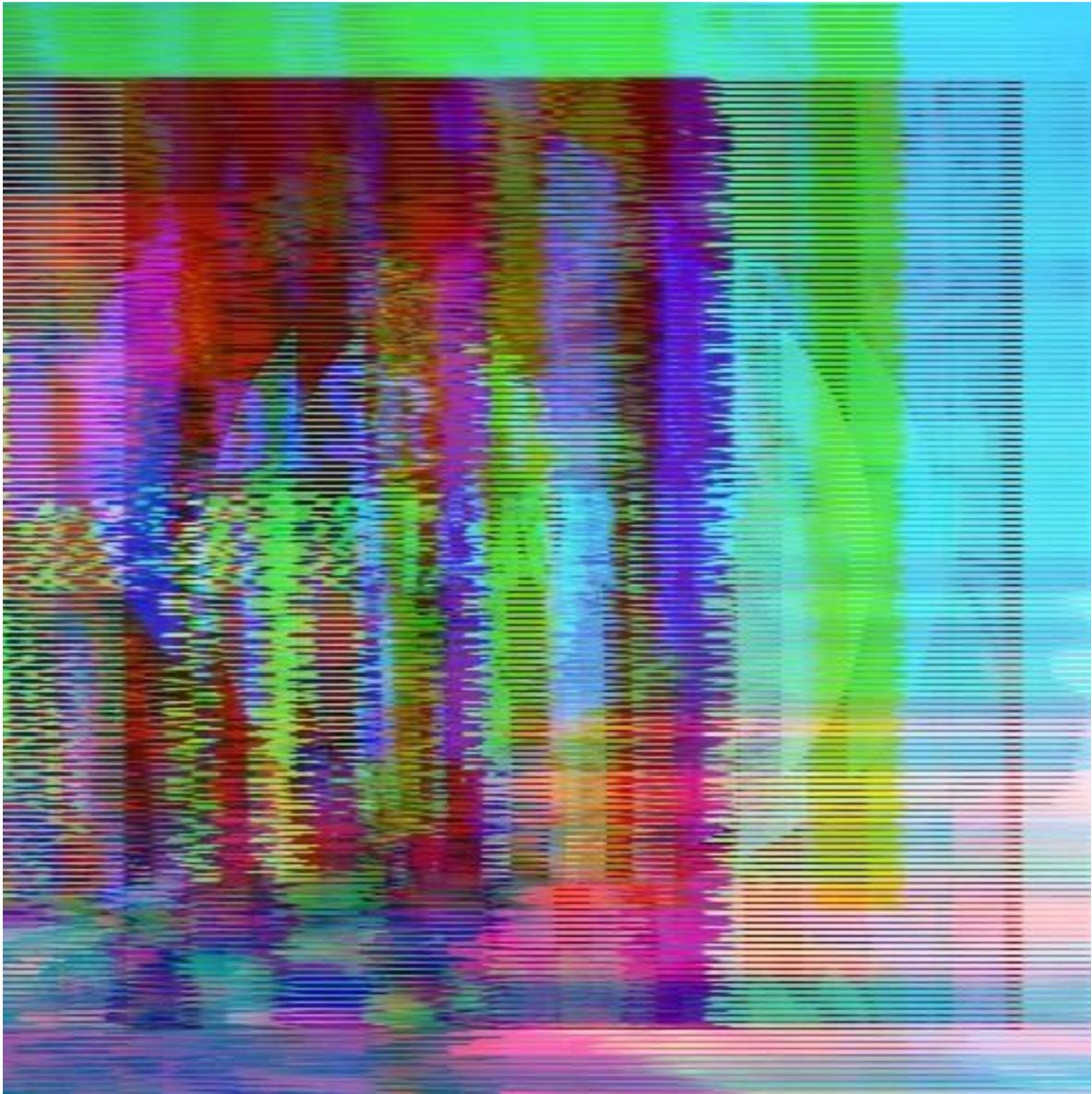
Figure 85. Photograph. iColorama. 'Disrupt' (2016).

iPad: Sketchbook

Figure 86. SketchClub. 'Shane' (2016).

Figure 87. SketchClub. 'Dad' (2017).

Figure 88. SketchClub 'Coffee Shop' (2016).

Figure 89. SketchClub. 'Settee, Dale Road' (2014).

Figure 90. SketchClub. 'Lincoln' (2014).

Figure 91. SketchClub. 'Southampton' (2017).
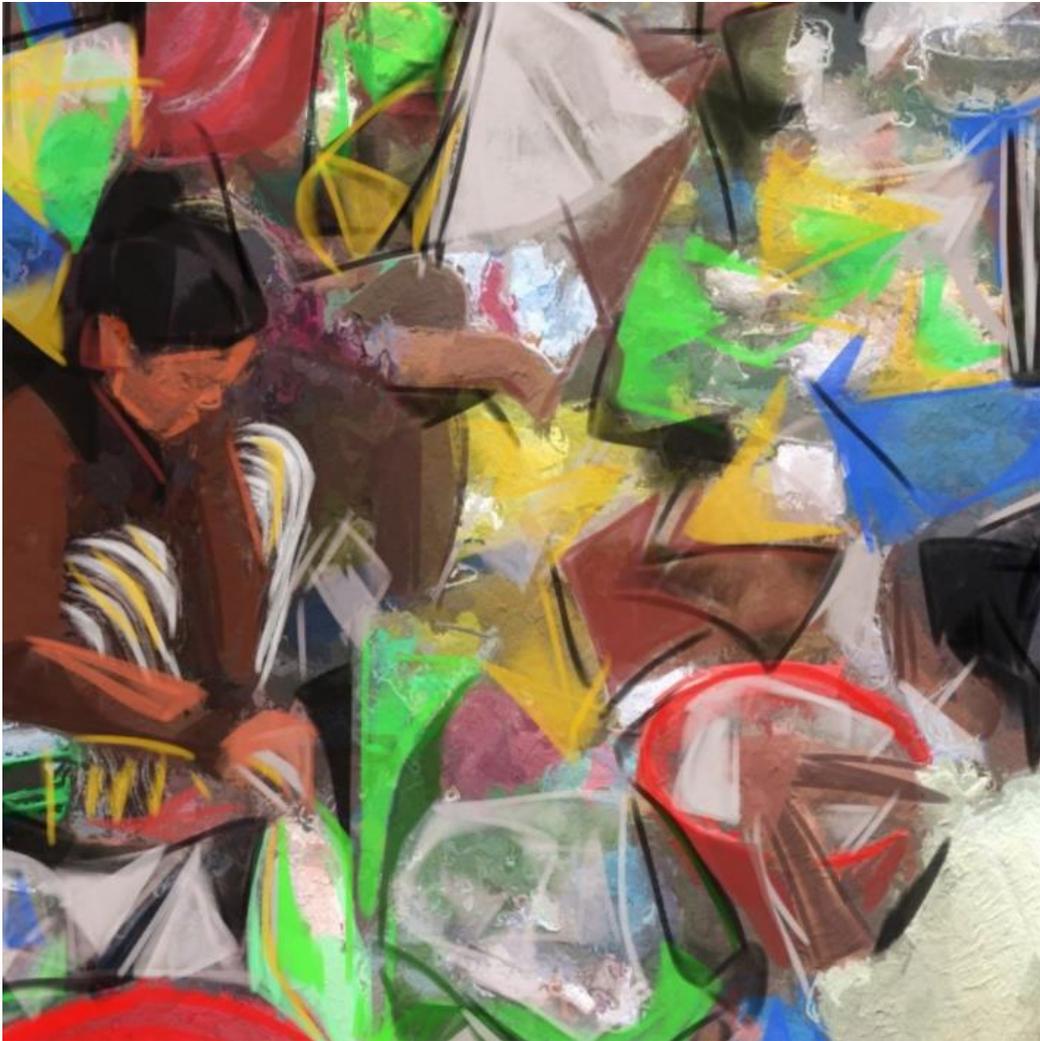
Figure 92. SketchClub 'Cambodia' (2016).

Figure 93. SketchClub. 'Vietnam' (2016).

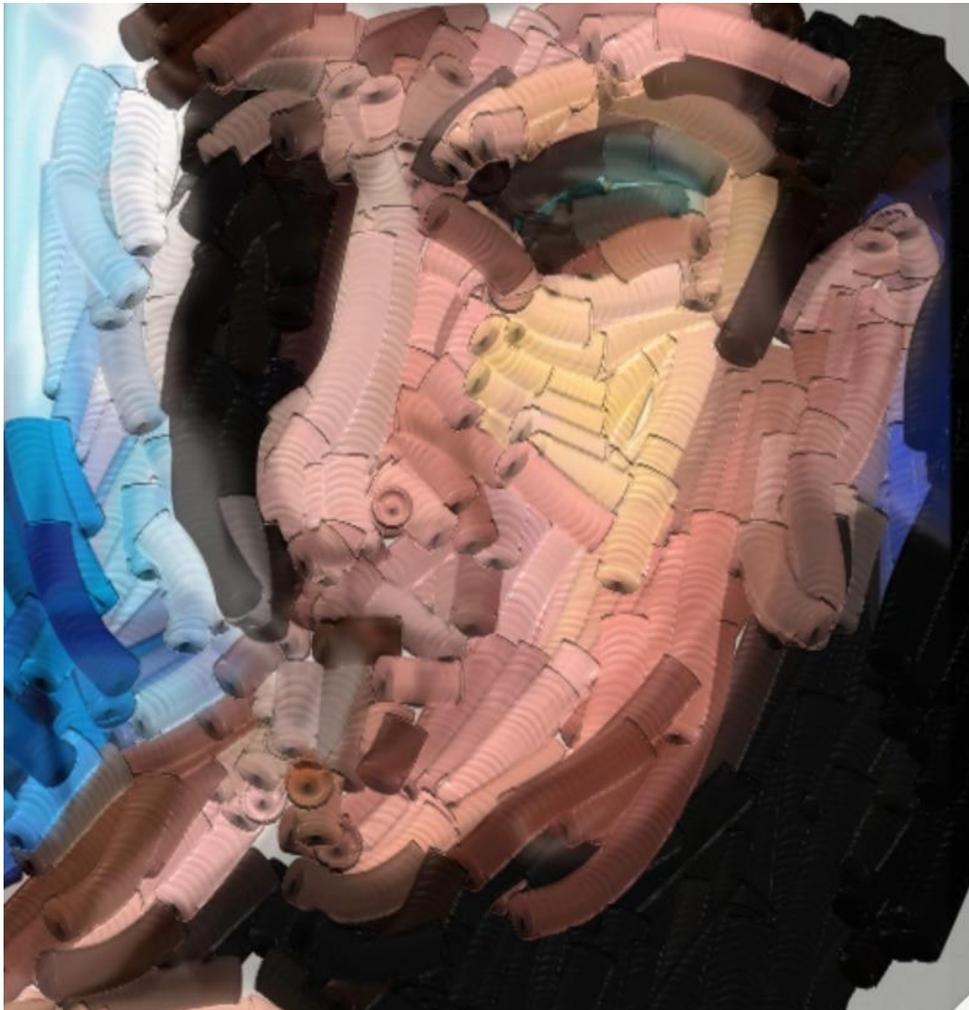*Figure 94. ArtRage. 'Settee' (2015).*

Figure 95. ArtRage. (2017).

Figure 96. ArtRage. 'Michael' (2014).

Figure 97. ArtRage. 'Mark' (2016).

Figure 98. ArtRage. 'Self-portrait' (2016).

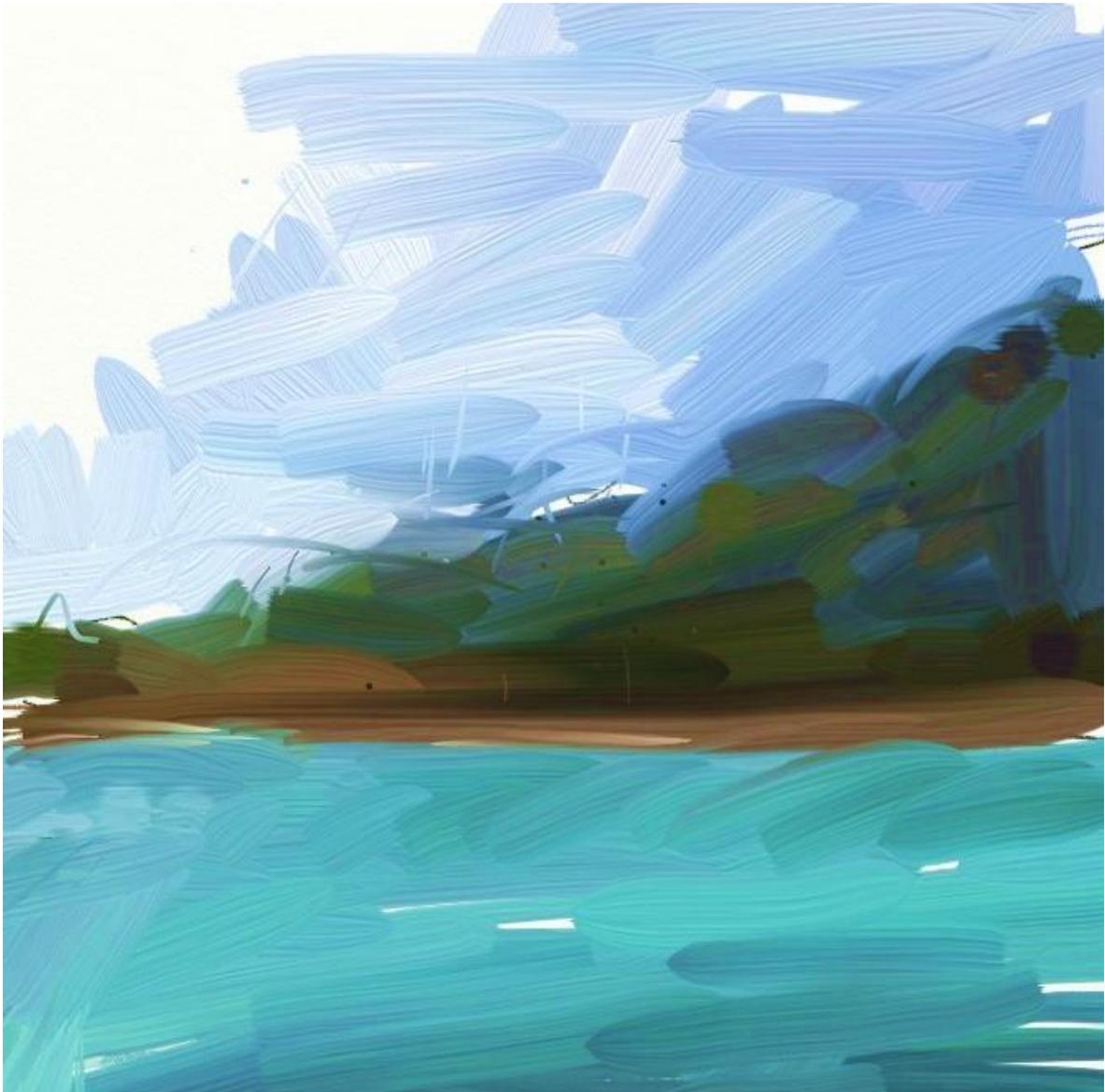*Figure 99. Procreate. 'Thailand' (2016).*

Figure 100. Procreate. 'Philippines' (2016).

Figure 101. Procreate. 'Self-portrait' (2017).